APPENDIXES

APPENDIX A

May 2, 1991

Notice of Preparation
of a Draft Environmental Impact Report

The City of Chula Vista will be the lead agency and will prepare a draft Environmental Impact Report (EIR) for the following project:

PROJECT: Chula Vista Mall Expansion. The proposed project is the expansion of an existing regional shopping center (Chula Vista Center) located between "I" and "H" Streets, east of Broadway in the City of Chula Vista. The expansion will include the construction of a department store (82,600 square feet), a cinema (36,000 square feet), a multiple story parking garage (with approximately 900 parking spaces) and a drug store (23,400 square) for a total expansion of 141,000 square feet of building space. The proposed project also includes demolition of a portion of the existing shopping center, specifically an existing vacant supermarket (31,000 square feet), an existing drug store (21,834 square feet), an existing bank (6,000 square feet) and some existing retail space (7,850 square feet). The total building area proposed for demolition is 66,648 square feet. The existing 8,000 square foot vacant Penney (Firestone) Automotive Center located on the south side of the site may also be demolished. The total net building area to be added to the shopping center is approximately 74,316 square feet. The overall project site consists of approximately 55 acres. The proposed project includes consideration by the Design Review Committee and the Area Review Committee and approval by the Redevelopment Agency. The site is currently designated for Retail on the General Plan. It is within the Town Centre II designation of the Redevelopment Plan. Zoning is CC (Commercial). No change in land use designations or zoning will be required for this project.

CASE NO.: EIR-91-04

An initial study prepared for this project identified the following potentially significant environmental impacts: land use/General Plan Elements/Zoning, Aesthetics, Community Tax Structure/Fiscal Impacts/ Socioeconomic, Utility Service and Relocation, Transportation/Access, Noise and Hazardous Waste and the City thresholds/standards policy. Other standard sections required by CEQA will also be included, such as Alternatives to the Project, Mitigation Monitoring, Short-term and Long-term Impacts, Cumulative Impacts and Growth Inducement.

For more information, or to provide comments on the scope and content of the draft EIR, contact Marilyn R.F. Ponseggi at the City of Chula Vista Planning Department, (619) 691-5101.

Written documents on the scope and content of the draft EIR must be sent to the above address by no later than thirty (30) days after receipt of this notice.

Attachments: Regional Map
Vicinity Map
Site Plan

Distribution: Homart Development Company - Kenneth Hocker
City of Chula Vista
- Planning Department
- Community Development - Fred Kassman
- Building Department
- Engineering Department
- Parks & Recreation Department

Chula Vista City Schools
Chula Vista Unified High School District
San Diego Gas and Electric
RECON

WPC 9151P

CHULA VISTA MALL EXPANSION - CHULA VISTA

PROJECT LOCATION

The proposed project is situated to the south of "H" Street, north of "I" Avenue and east of Broadway in the City of Chula Vista. It is within the Redevelopment Project area. The Assessor's Parcel Numbers are 572-020-07, 09, 12 and 572-010, 31, 32, 33.

PROJECT DESCRIPTION

The project consists of a approval by the Redevelopment Agency of the proposed shopping center expansion. The expansion will include the construction of a department store, a multiple story parking structure, a cinema and a drug store for a total expansion of 141,000 square feet of building space. The proposed project also includes demolition of a portion of the existing shopping center, including an existing vacant supermarket, an existing vacant drug store, an existing bank and some existing retail space. The total building area proposed for demolition is 66,648 square feet. The existing vacant Penney (Firestone) Automotive Center located on the south side of the site may also be demolished. The total net building area to be added to the shopping center is approximately 74,316 square feet. The site is designated for Retail on the General Plan and is zoned CC. No General Plan amendment or zone changes are proposed as part of the project.

ENVIRONMENTAL ISSUES

As identified in the Initial Study conducted for the proposed project, potentially significant, adverse impacts have been identified. The following environmental issues will be addressed in the EIR: land use/General Plan Elements/Zoning, Aesthetics, Community Tax Structure/Fiscal Impacts/Socioeconomic, Utility Service and Relocation, Transportation/Access, Noise and Hazardous Waste and the City thresholds/standards policy.

Land Use/General Plan Elements/Zoning

The Chula Vista Mall was originally constructed in the 1960's with a major expansion (Town Center II EIR) and renovation within the last three years. This section of the EIR will address the currently proposed expansion and demolitions with regards to the City's existing codes, policies and General Plan. The site is within the Redevelopment area therefore this section of the EIR will take that into account. The Chula Vista Mall is adjacent to residential development to the south and west. Potential impacts to these residences as a result of the project, specifically the location of a proposed parking structure will be analyzed.

Aesthetics

The proposed design of the project has a potential impact to the surrounding area, especially with regards to the adjacent residences. The potential impact of the project, in relation to the City's codes and policies regarding design review and aesthetics will be analyzed in this section.

Community Tax Structure/Fiscal Impacts/Socioeconomic

The proposed project site is within a Redevelopment area. Potential impacts or benefits from the property in terms of tax revenue will be identified and analyzed. Fiscal impacts as they relate to the physical environment will be addressed. Specifically the impact of the proposed development on Chula Vista's Downtown Redevelopment commercial area. In addition, the viability of the additional commercial uses to be added to the center will be analyzed. Finally, this section will analyze the overall socioeconomic impacts this project may have in terms of quality of life and its affect on the City's ability to continue to provide services, etc.

Utility Service and Relocation

There is a major gas line crossing the Chula Vista Mall from the south to the north terminus of Fifth Avenue. Potential impacts related to the gas line associated with the proposed development will be analyzed.

Transportation/Access

Potential impacts related to an increase in traffic and circulation in the area will be analyzed. Particularly the impacts from a potential change in traffic patterns as a result of new activity and the relocation of existing uses (i.e.drug store and theaters) in the southern portion of the property. Traffic analysis will address access impacts, alternative access if necessary and the impact to surrounding roadways from changes to traffic patterns.

Noise

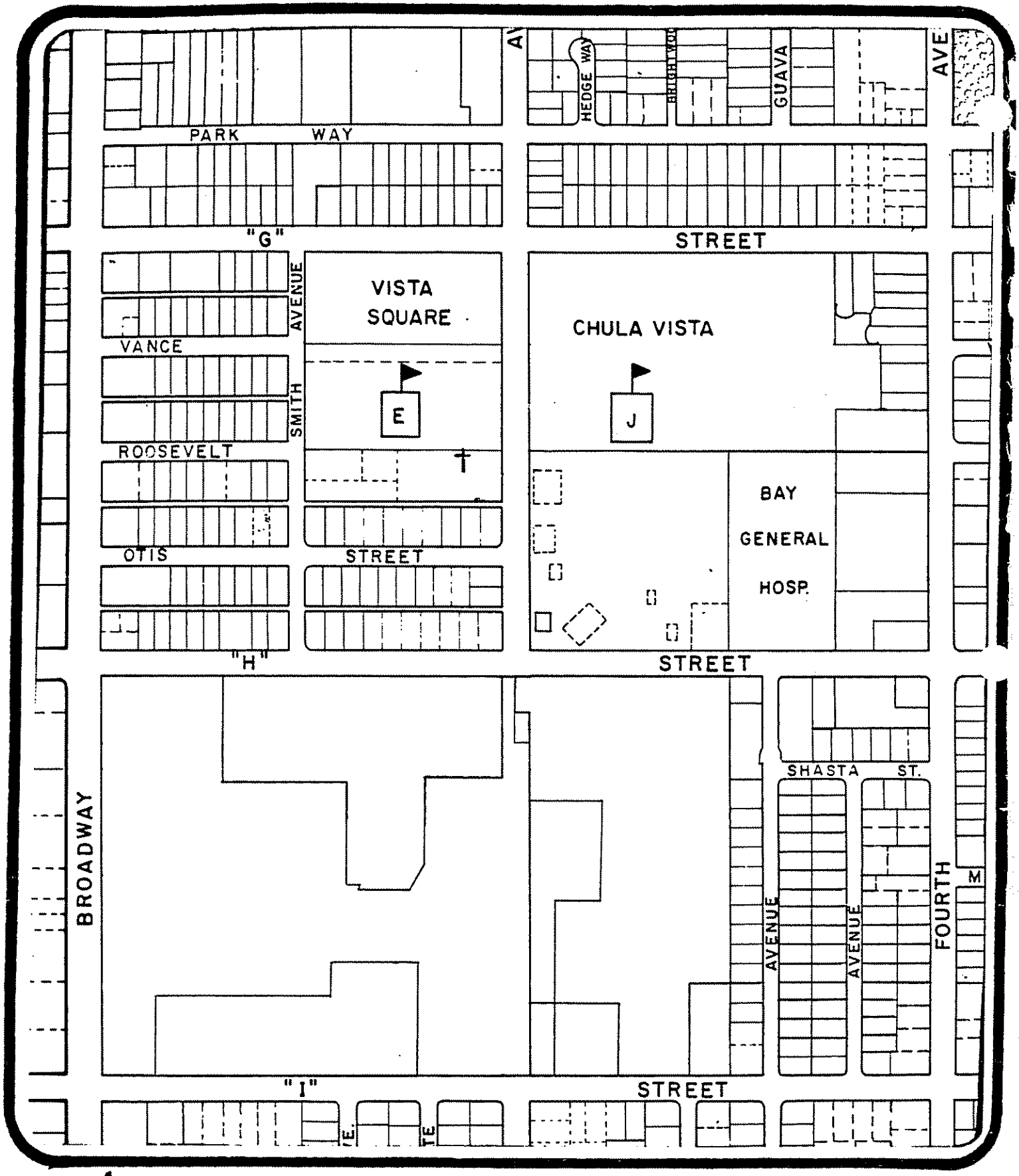
Potential noise impacts to surrounding residences from both the additional parking lot and structure and the possible increased traffic on "I" Street will be analyzed in this section of the EIR. Potential noise impacts that may result from additional vehicles accessing the site through the "I" Street entrance of the center will be analyzed.

3.24 Hazardous Waste

The vacant Automotive Center has a potential for hazardous waste due to auto repair previously done in this location. The potential impact from hazardous waste will be analyzed in this section. In addition, the buildings to be demolished were constructed with some asbestos building materials. The EIR will assess the potential impact from demolition of these buildings.

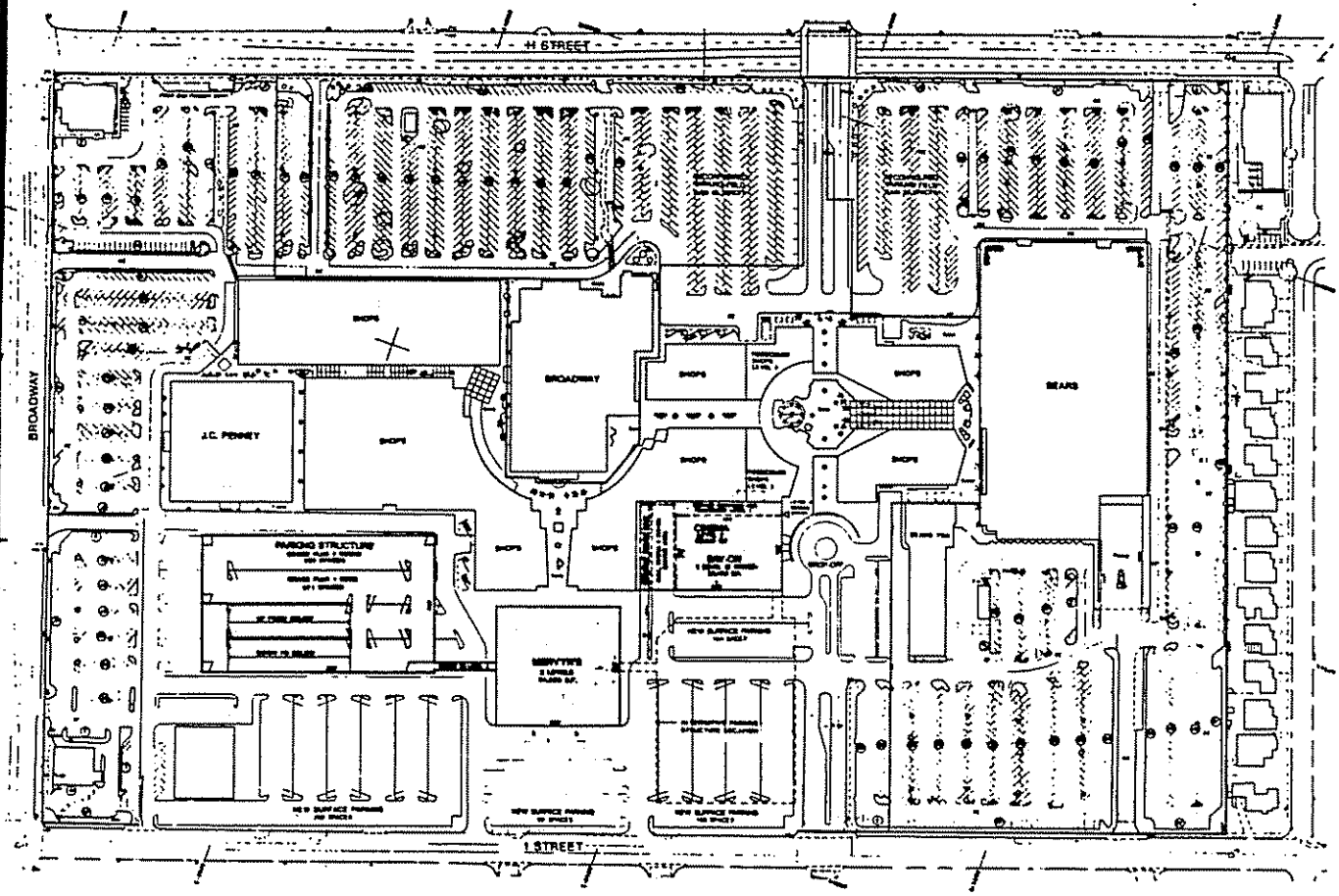
Thresholds

All City environmental standards and thresholds will be used to analyze potential significant impacts and their level of impact.



NORTH

LOCATOR



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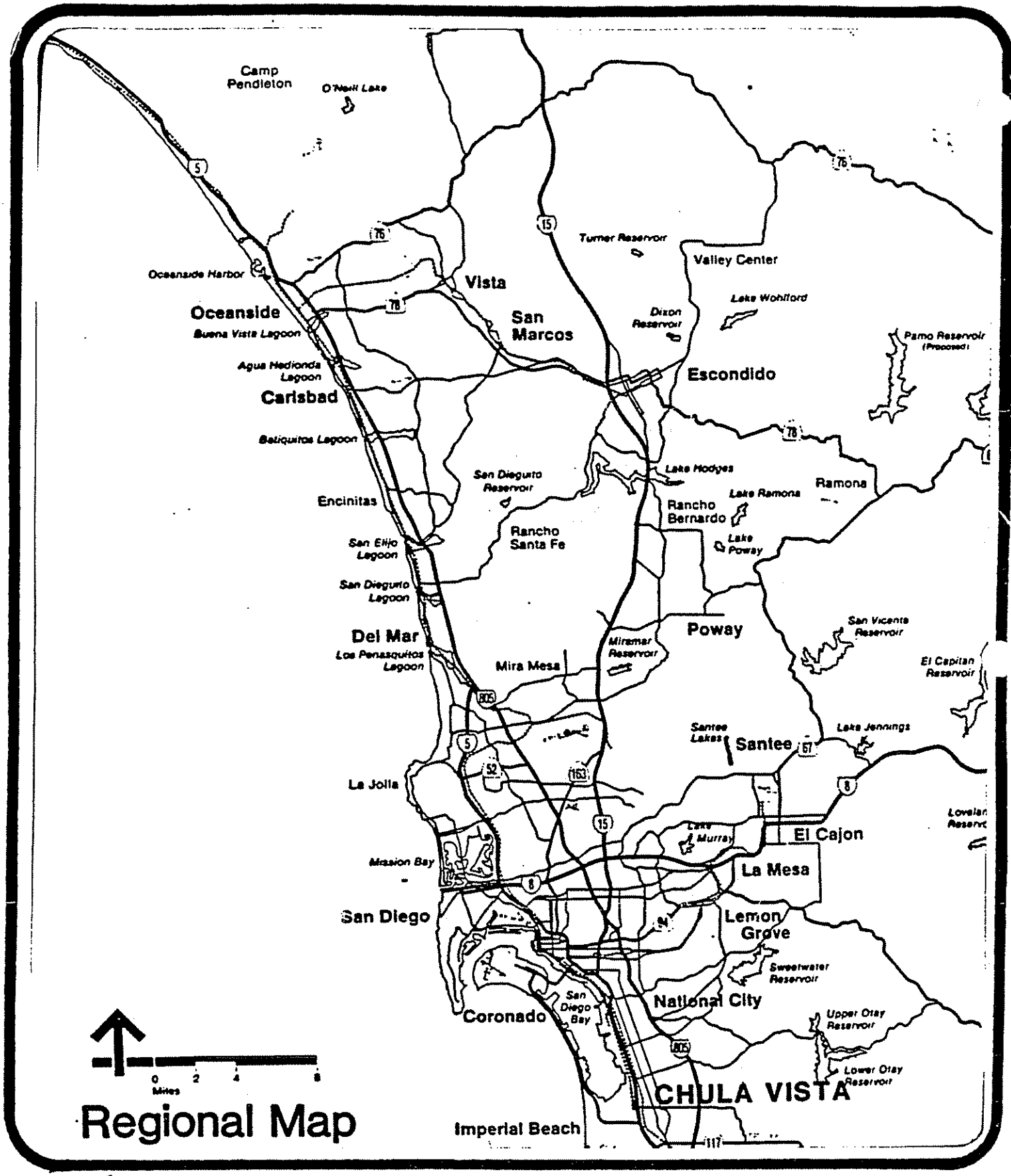


Regional Map

NORTH

LOCATOR

CHULA VISTA ELEMENTARY SCHOOL DISTRICT

84 EAST "J" STREET • CHULA VISTA, CALIFORNIA 92010 • 619 425-9600

EACH CHILD IS AN INDIVIDUAL OF GREAT WORTH

May 8, 1991

Ms. Marilyn R. F. Ponseggi
Planning Department
City of Chula Vista
276 Fourth Avenue
Chula Vista, CA 91910

RE: Chula Vista Mall Expansion / Case No. EIR-91-04
Notice of Preparation of an Environmental Impact Report

Dear Ms. Ponseggi:

Thank you for the opportunity to review and comment on the Notice of Preparation for the Chula Vista Mall expansion.

The Chula Vista Mall is located within the Vista Square Elementary School attendance area. This facility is operating above permanent capacity and projected growth will exacerbate this situation.

The Draft EIR for the mall expansion should address the number of new jobs which will be created by the net 74,316 square foot expansion. Since new jobs mean new households, impacts on school facilities from these new employees should be analyzed and mitigation proposed. Developer fees allowed by current State law ($1.58/square foot) provide approximately one-fourth of new facility costs, and the District recommends participation in an alternative financing mechanism, such as a Mello-Roos Community Facilities District, to adequately mitigate school facilities impacts.

If you have any questions, please contact me.

Sincerely,

Kate Shurson

Kate Shurson
Director of Planning

KS:dp

STATE OF CALIFORNIA - BUSINESS, TRANSPORTATION AND HOUSING AGENCY

PETE WILSON, Governor

DEPARTMENT OF TRANSPORTATION

DISTRICT 11, P.O. BOX 85406, SAN DIEGO 92186-5406

June 19, 1991

11-SD-005
7.9

Marilyn R.F. Ponseggi
City of Chula Vista
Planning Department
276 Fourth Avenue
Chula Vista, CA 92010

Dear Ms. Ponseggi:

Notice of Preparation of a DEIR for
the Chula Vista Mall Expansion - SCH 91051042

Caltrans District 11 will probably not have a responsible agency role in the preparation of this document. We will, however, appreciate the opportunity to review the analyses for Transportation/Access and Cumulative Impacts. Cumulative, peak-hour impacts at the Interstate Route 5/H Street interchange will be of particular interest to our agency. That analysis needs to be based on year 2010 traffic and should consider the impacts of ramp metering in the discussion of local levels of service. Our contact person for traffic information is Richard Coward, Project Manager, Project Services Branch, (619) 688-3303.

Sincerely,

JESUS M. GARCIA
District Director

By

JAMES T. CHESHIRE, Chief
Environmental Planning Branch

May 9, 1991

To: Marilyn Ponseggi
Planning Department

From: George Smith, Captain GS
Fire Prevention

Subject: EIR-91-04, Chula Vista Shopping Center

COMMENTS:

1. Complete fire systems shall be required for all proposed buildings. Precise system requirements to be determined when the building plans are submitted.

2. Fire department access shall be required with considerations of the following:

   a. Fire Department connection to fire protection systems in both existing and proposed buildings.

   b. Water supply and distribution.

   c. Access width and height requirements.

   Scaled plot plans shall be submitted to aid in the above considerations.

3. Water supply will be evaluated to include flow requirements, main system layout, and hydrant locations.

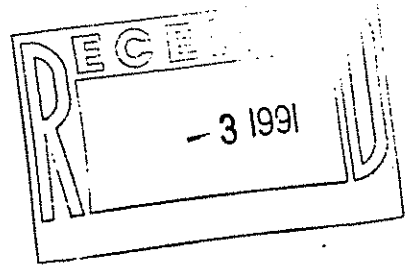
4. Complete scaled plans shall be submitted indicating the location of water mains and sizes, hydrant locations, and all existing fire department connections.

0216-05.L

Sweetwater Union High School District

ADMINISTRATION CENTER
1130 FIFTH AVENUE
CHULA VISTA, CALIFORNIA 92011
(619) 691-5553

PLANNING DEPARTMENT



May 29, 1991

Ms. Marilyn R.F. Ponseggi
City of Chula Vista
Planning Department
276 Fourth Avenue
Chula Vista, CA 91910

Dear Ms. Ponseggi:

Re: Chula Vista Mall Expansion/Notice of Preparation EIR 91-04

Thank you for the opportunity to respond to the Notice of Preparation of a Draft Environmental Impact Report for the proposed Chula Vista Mall expansion project. As you are aware, the project is located in the Sweetwater Union High School District which offers secondary education, grades 7-12, to the residents of Chula Vista.

Specifically, the project is located in the Chula Vista Junior and Chula Vista High Schools attendance areas. Presently, those schools are operating at or above their capacities. The following student capacity table illustrates the current status of these schools:

SCHOOL	CBEDS 1990-91	PERMANENT CAPACITY	TEMPORARY CLASSROOMS	TOTAL CAPACITY
CVJ	1400	1070	360	1430
CVH	1919	1356	480	1836

The table shows that Chula Vista Junior High School is operating at 98-percent capacity and the high school at 105-percent. To further complicate matters, the state has mandated that trailer classrooms are substandard teaching stations because they do not meet the Field Act; therefore, they must be removed. The twelve trailer classrooms at Chula Vista Junior High School must be replaced by the district prior to September 1992.

The mall expansion will impact district facilities through the added employment opportunities available to the region and the associated new households which will result. Another significant impact the report should address, is the loss of tax revenue which would have come to the district had this project not been in the redevelopment area and not subject to the tax increment structure. Because there is no agreement between the district and the redevelopment agency for this RDA project area, the district will not receive any of the revenue the mall expansion might bring to the community.

These dollars, lost revenue to the district, should be identified in the report as well as acceptable mitigation measures. Payment of fees alone, $0.14 per square foot, is not appropriate mitigation for lost tax revenue opportunities. One acceptable mitigation measure is the agency's participation in the cost to replace the trailer classrooms at Chula Vista Junior High School.

I look forward to reviewing the Draft Environmental Impact Report and the manner in which it addresses these concerns. If you have any questions, please feel free to contact me.

Sincerely,

Thomas Silva
Director of Planning

Ts/sf

APPENDIX B

CITY OF CHULA VISTA
CHULA VISTA SHOPPING CENTER EXPANSION
FISCAL AND SOCIOECONOMIC IMPACT ANALYSIS

June 19, 1991

Prepared for:

RECON
7460 Mission Valley Road
San Diego, CA 92108

Prepared by:

JOHN McTIGHE & ASSOCIATES
3160 Camino Del Rio South, Suite 205
San Diego, California 92108
(619) 281-7724

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CHAPTER I - INTRODUCTION AND SUMMARY

SCOPE OF REPORT

John McTighe & Associates was retained by RECON to prepare an analysis of the fiscal impact on the City of Chula Vista of the proposed Chula Vista Shopping Center Expansion.

This analysis has considered all known non-enterprise fund operating costs and revenues that might be attributable to the development of the Chula Vista Shopping Center Expansion.

City operating costs were projected based on a computer model that took into consideration the fiscal year 1990-91 budget of the City and input received from the various City operating departments. The model includes an allocation of indirect and overhead costs to direct service activities of the City. In this manner the projections of added costs attributed to Chula Vista Shopping Center Expansion will in fact reflect the full costs to the City of the expansion.

City revenue projections were based on the existing revenue sources of the City. Computer modelling of the relationship of individual revenue accounts to population, land use and other factors was developed by John McTighe & Associates to simulate the changes in revenue that could be expected as a result of the development of this project. A separate model of assessed valuation/property tax changes was developed to project the effect on the Redevelopment Agency's property tax revenues based on the developer's projection of net operating income. An additional model was developed to project the increases in sales tax revenue related to the specific tenants of the shopping center.

While every attempt has been made to assure accuracy in the projections given the assumptions incorporated in the analysis, unforeseen changes in State law, City Council policy, the general economy or the rate and type of development could result in differences from the projected outcomes.

The principal value of this type of analysis lies in being able to compare alternative land use decisions with the present circumstance and with one another. When these comparisons are combined with the ecological, economical, social and political considerations and placed in context with other fiscal factors affecting the City, a reasoned judgement about a project's relative effect on the City's fiscal position can be made.

CHARACTERISTICS OF THE PLAN

The plan for the Chula Vista Shopping Center Expansion analyzed in this study is based on information provided to John McTighe & Associates from Homart Development Company. Table I-1 shows the changes from the existing shopping center that are proposed.

Table I-1
Chula Vista Shopping Center Expansion
Land Use Plan

	Square Feet
Add	
Department Store	81,600
Cinema	36,000
Drugstore	23,400
Total Add	141,000
Demolish	
Existing Vacant Supermarket	31,000
Existing Drugstore	21,834
Existing Bank	6,000
Existing Shops	7,850
Total Demolish	66,684
Net Add Area	74,316

SUMMARY OF ANALYSIS

The development of Chula Vista Shopping Center Expansion is projected to have an overall positive fiscal impact on the City of Chula Vista. In other words, City operating revenues are projected to exceed City operating costs over the period of time analyzed in this study. Chula Vista Shopping Center Expansion's annual impact after buildout is projected to be a positive $1.196,001 per year in constant 1991 dollars. This is an increase of $206,979 per year from the center's current positive impact on the City, exclusive of the impact on the Redevelopment Agency.

The following tables and figures reflect the projections of operating cost and revenue by fund as fully discussed in Chapters II and III. Chapter IV discusses the projected revenue impacts of the expansion on the Town Center II Redevelopment Project Area. Chapter V discusses the projected impacts of the potential alternatives to the shopping center expansion as proposed. Chapter VI discusses the socioeconomic impacts that the proposed shopping center expansion may have on the City and existing businesses within the City's downtown area.

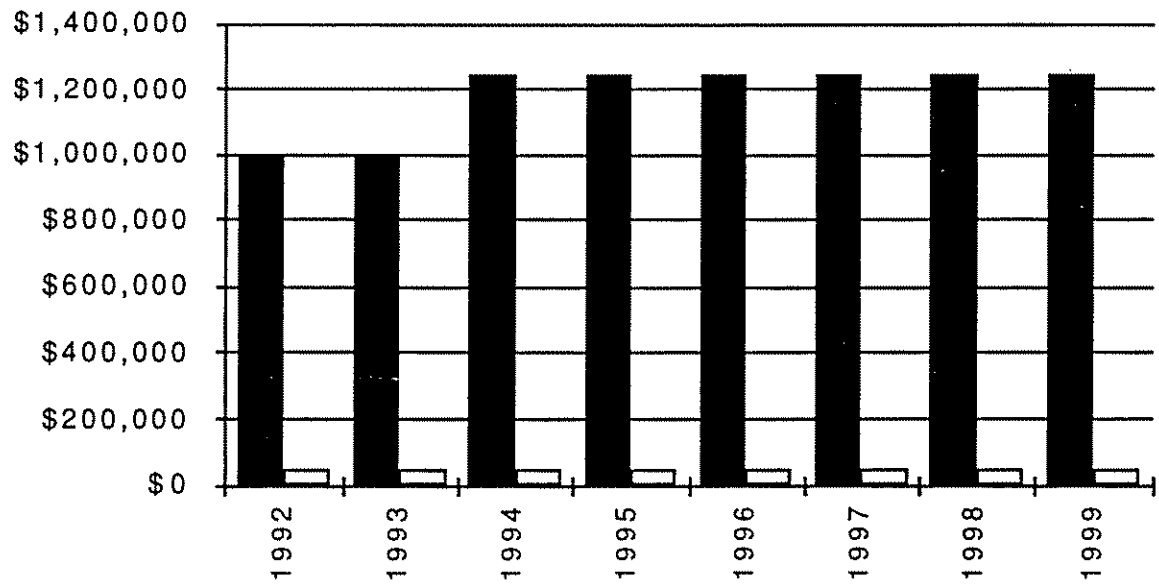
Table I-2 shows the projected combined operating funds costs and revenues over the buildout period and for five years beyond. The funds included in this grouping are the General Fund and Gas Tax Fund.

Table I-2
Chula Vista Shopping Center Expansion
Projected Annual City Operating Revenues and Costs
(in constant 1991 $)

Fiscal Year	Revenue	Cost	Annual Net Impact	Revenue/ Cost Ratio
1992	$989,022	$42,754	$946,268	23.13
1993	989,037	42,553	946,484	23.24
1994	1,243,991	48,770	1,195,221	25.51
1995	1,244,009	48,524	1,195,485	25.64
1996	1,244,028	48,283	1,195,745	25.77
1997	1,244,045	48,045	1,196,001	25.89
1998	1,244,045	48,045	1,196,001	25.89
1999	1,244,045	48,045	1,196,001	25.89

Figure I-1 shows the relationship between the costs and revenues on an annual basis for each of the first ten years of development.

Figure I-1
Chula Vista Shopping Center Expansion Cost and Revenue



CHAPTER II - OPERATING EXPENDITURE ANALYSIS

The analysis of municipal operating expenditures has been prepared based on information gathered from a review of the City of Chula Vista' 1990-91 operating budget and discussions and/or correspondence with various city departments.

To determine the full costs of providing city services, John McTighe & Associates prepared a cost allocation of the indirect and overhead costs contained in the City's budget. These costs have been allocated to eleven "direct service" activities. The 11 activities and their associated 1990-91 direct service budgeted expenditures are listed on Table II-1 below. Appendix A shows the costs that were allocated to each of these activities.

Table II-1
City of Chula Vista
1990-91 General Fund Direct Service Activities' Full Cost

Activity/Department	1990-91 Full Cost
General Government & Non-Departmental	$1,546,838
Planning	1,702,306
Otay Ranch Project	238,716
Community Development	1,180,984
Police/Animal Regulation	16,731,443
Fire Protection	6,554,916
Building & Housing	1,155,834
Public Works/Engineering	
Engineering	
Design Engineering	602,410
Eng. Advance Plng./Sewer	475,809
Land Development	845,507
Construction Inspection	887,060
Geographic Information Sys.	155,205
Traffic Engineering	633,485
Public Works Operations	
Street Maintenance	1,532,045
Street Sweeping	372,950
Street Tree Maintenance	632,692
Traffic Operations	493,925
Traffic Signal & Street Light Maintenance	1,140,280
Sanitary Sewer Maintenance	1,179,693
Wastewater Lift Station Maint.	210,123
Parks & Recreation	4,503,808
Library	3,067,371
Total	$45,843,398

Source: City of Chula Vista 1990-91 Adopted Budget;
John McTighe & Associates

When all indirect and overhead costs were allocated, the resulting eleven activities were reviewed to determine which ones would be impacted as a result of the proposed development of

Chula Vista Shopping Center Expansion as illustrated in the conceptual development plan in Chapter I. Table II-2 lists the type of impact anticipated on each of the activities.

Table II-2
Effect of Chula Vista Shopping Center Expansion Development on City Operating Expenditure Activities

No Impact	One-Time Impact	On-Going Impact
General Government*	Planning	Street Maintenance
Otay Ranch Project	Building Inspection	Traffic Operations
Police/Animal Regulation	Engineering	Fire Department
Street Sweeping	Fire Prevention	
Street Tree Maintenance	Community Development	
Traffic Signal & Street Light Maintenance		
Parks & Recreation		
Library		

* $ 4,313,025 of General Government costs have been allocated as overhead to other activities [see Appendix A].

Source: John McTighe & Associates

The following discussion assesses the impact of the proposed land uses on those activities shown as impacted on Table II-2.

ONE TIME IMPACT

Planning

Planning will experience a one-time impact as the plans for the development of the Chula Vista Shopping Center expansion are formalized and processed. It is not now possible to quantify the cost of this impact on the current planning activity. However, Chula Vista's planning fees have been established at a level intended to recover the full cost of the Planning Department's processing resulting in no net cost to the City.

Building Inspection

The Building inspection activity provides structural plan check and field inspection services on all new construction within the City. This activity will experience a one-time impact as the construction on the site takes place. However, neither the magnitude nor the cost of this activity can be estimated without specific construction plans for the site. The full costs for these services are recovered through the levying of fees upon the subject construction. As a result, no net costs are assumed to be incurred by the City for the services of the Building Inspection activity during the buildout of Chula Vista Shopping Center.

Engineering

There would be a one-time impact upon engineering services during the development of the property. Due to the lack of specific plans for development, it is not possible to project the cost of this impact at this time. However, the City's engineering fees have been established on a full cost recovery basis thereby assuring that the costs to be incurred by the City for engineering services will be fully offset by the imposition of fees upon the development requiring the expenditures to be made.

Fire Prevention

Fire prevention would experience one-time costs for review of the building plans for all structures proposed for the property. The costs for these services cannot be estimated at this time due to the lack of specific building plans for the property.

Community Development

There would be a one time impact upon the Community Development Department as the development and disposition agreement and other arrangements are processed for this project which lies within the Town Center II Redevelopment Project Area. However, this cost is recovered through the tax increment received by this department from the Redevelopment Agency. Therefore, there is no net cost to the City's operating funds for this department.

ON-GOING IMPACT

Table II-3 summarizes the projected annual on-going costs through fiscal year 1998-99. The bases for the projections are discussed in the following paragraphs.

Table II-3
Summary of On-going Annual City Cost Increments Resulting from Development of Chula Vista Shopping Center Expansion (in constant 1991 $)

Fiscal Year	Annual Cost
1992	$42,754
1993	42,553
1994	48,770
1995	48,524
1996	48,283
1997	48,045
1998	48,045
1999	48,045

The projections of cost for street maintenance and traffic operations that follow utilize average daily traffic trips in determining the incremental share of city-wide costs to be attributed to Chula Vista Shopping Center Expansion. Existing average daily traffic trips of 30,400 and projected added trips of 3,000 were based on input from Linscott, Law & Greenspan, the traffic

consultants for the EIR. The City is currently projected to have 1,169,792 ADTs related to residential, commercial and industrial land uses.

Street Maintenance

Street maintenance costs were estimated using projected average daily traffic trips.

One-half of the cost of the existing cost of street maintenance was attributed to the 275 miles of streets in the City's maintained system. Since no new street miles are being added by this project, no additional cost was estimated based on this factor.

The other half of the cost of street maintenance was attributed on the basis of the amount of usage of city streets as measured by the incremental increase in average daily traffic. These were estimated based on the input from the traffic consultant. The City is currently projected to have 1,169,792 ADTs. One-half of the estimated 90-91 cost of street maintenance divided by the estimated current ADTs yields an average annual maintenance cost per ADT of $.65. This factor of $.65 was applied to the estimated annual ADTs to arrive at the portion of the street maintenance costs attributable to actual travel trips.

Table II-4
Chula Vista Shopping Center Expansion
Street Maintenance Cost Projections
(in Constant 1991 $)

Fiscal Year	Annual Cost
1992	$20,284
1993	20,284
1994	22,286
1995	22,286
1996	22,286
1997	22,286
1998	22,286
1999	22,286

Traffic Operations

The traffic operations costs were projected on the same basis as street operations. That is, one half of the current year's cost was calculated on a per mile of public street basis of $898.05 and the other half was equated to be approximately $.21 per average daily traffic trip (ADT). Since only ADTs are being added by this project, only the amount of ADTs were used to arrive at the projections shown.

Table II-5
Traffic Operations Cost Projections
(in Constant 1991 $)

Fiscal Year	Annual Cost
1992	$6,540
1993	6,540
1994	7,185
1995	7,185
1996	7,185
1997	7,185
1998	7,185
1999	7,185

Fire Department

Fire services costs were allocated to the Chula Vista Shopping Center based on a methodology developed for allocation of fire services costs to the updated EastLake I fiscal impact analysis in February 1988. Briefly, an equivalent dwelling unit for fire services purposes was derived based on projections of city-wide growth of dwelling units, commercial acres and industrial acres. The SANDAG Series 7 growth rates were applied to the 1987 base number of dwelling units (45,101), commercial acres (786.7) and industrial acres (562.03) to project the future number of city-wide fire equivalent dwelling units. The cost of providing fire protection services was kept constant through 1992 and then increased by the cost of one additional engine company. The cost per equivalent dwelling unit was determined by dividing this annual cost by the number of EDUs in any particular year. The resulting cost per EDU was then applied to the number of fire EDUs that were projected to exist in Chula Vista Shopping Center in that particular year based on a factor of ten EDU per net acre of shopping center development.

Table II-6
Chula Vista Shopping Center Expansion
Fire Department Cost Projections
(in Constant 1991 $)

Fiscal Year	Annual Cost
1992	$15,930
1993	15,729
1994	19,299
1995	19,053
1996	18,812
1997	18,574
1998	18,574
1999	18,574

CHAPTER III - OPERATING REVENUE ANALYSIS

ONE TIME IMPACT

The City receives one-time revenues associated with the processing of land development projects. Fees for building, plumbing, electrical, housing and sewer connection permits along with charges for environmental reviews, plan checks, zoning and engineering fees, etc., have been established by the City to recover costs incurred for these activities. The one-time revenues from these sources are expected to offset the City's expenditures resulting in no net cost to the City.

ON-GOING IMPACT

Figure III-1 shows the total on-going revenue per year projected through fiscal year 1998-99. Table III-1 shows the revenues projected during the first eleven years. The following paragraphs describe how the revenues for each source were projected.

Figure III-1
Chula Vista Shopping Center Expansion
Annual Operating Revenue

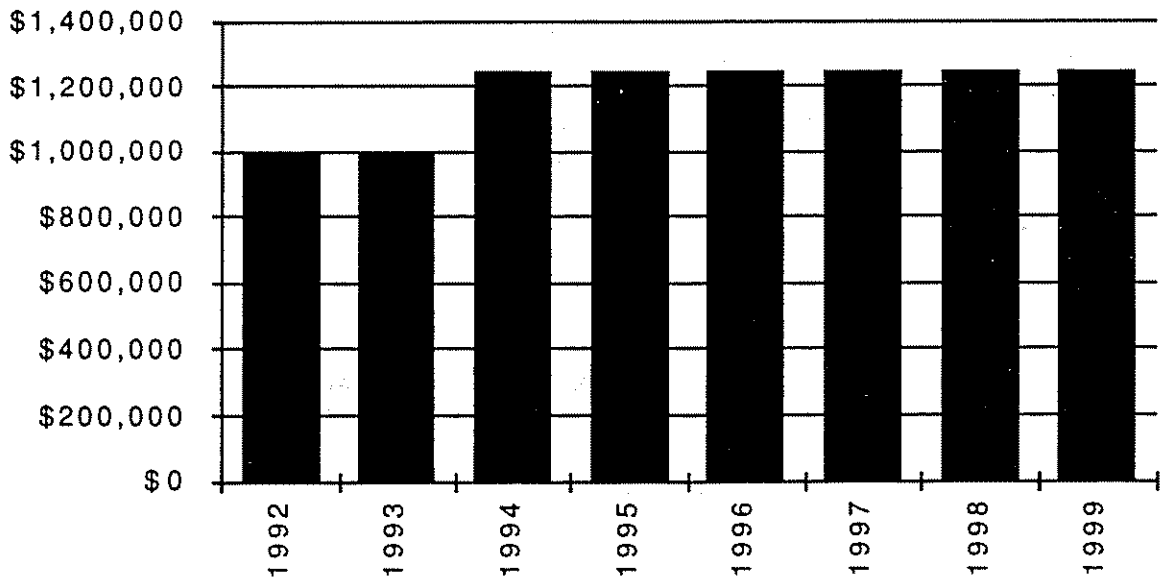


Table III-1
Summary of Annual Revenue Increments Resulting from Development of Chula Vista Shopping Center Expansion
(in constant 1991 $)

Fiscal Year	Annual Revenue
1992	$989,022
1993	989,037
1994	1,243,991
1995	1,244,009
1996	1,244,028
1997	1,244,045
1998	1,244,045
1999	1,244,045

Property Tax

Property taxes for general government purposes are limited to a total of 1% of the assessed market value. The taxes collected are apportioned among several different local government agencies in whose jurisdiction the property lies. The basis for apportionment of taxes has been established by formula for each tax rate area (TRA) based on the pre-1978 ratio of taxes within that TRA. Since the Chula Vista Shopping Center lies within a redevelopment project area (Town Center II), the base amount of property taxes are distributed in accordance with the above explanation, while the increment of property tax above the base amount is distributed in its entirety to the Chula Vista Redevelopment Agency. According to the San Diego County Auditor-Controller, the base assessed valuation for the Town Center II is $24,090,018. The City's share of property tax from the tax rate area within which the shopping center is located is 18.446%. Therefore the property tax yield from the base valuation is $44,436.

Chapter IV discusses the property tax increment from the project that will become available to the Redevelopment Agency.

Table III-2
Chula Vista Shopping Center Expansion
Property Tax Revenue Projection
(in constant 1991 $)

Fiscal Year	Annual Revenue
1992	$44,436
1993	44,436
1994	44,436
1995	44,436
1996	44,436
1997	44,436
1998	44,436
1999	44,436

Sales and Use Tax

Sales tax revenue projections from the Chula Vista Shopping Center have been based on a modelling of the stores located in the center and the median amount of sales per square foot of gross leasable area (GLA) of those types of stores as reported by the Urban Land Institute (ULI) in its Dollars and Cents of Shopping Centers: 1990. To estimate the base amount of sales tax revenue, the number of square feet for each of the existing stores was multiplied by the median sales per GLA report by ULI. This amount was then factored by the estimated percentage of taxable sales for each store (100% in most cases) to arrive at an estimate of sales tax revenue that could be anticipated from those stores. This amount was then multiplied by the 4.5% rate of inflation in 1990 to arrive at an unadjusted total of sales tax revenue from the entire shopping center for 1989-1990. This result was compared to the actual amount of sales tax revenue received by the City from the center in fiscal year 1989-90 as reported by the Finance Department ($1,189,635). An adjustment factor, referred to as the "sales coefficient," was then used to adjust all of the store's total sales tax revenue to agree with the City's total revenue. This factor of 8.22% basically reflects the fact that the results from the Chula Vista Shopping Center were approximately 8.22% greater than the median of all regional shopping centers in the United States.

Once the model was calibrated by the above adjustments, it was updated to reflected the proposed added and deleted stores. The adjusted sales per square foot of GLA were applied to the added uses, while the deleted uses were removed from the totals. The result was a projection that the proposed expanded shopping center would yield sales tax revenue to the City of $1,388,054 (in 1991 $) if it is assumed that no increases in sales from existing stores were to take place. However, it is highly likely that the addition of another anchor department store will draw additional business to the existing mall tenants. The Appendix D contains five different projections using assumptions of 0%, 2.5%, 5%, 7.5% and 10% growth in existing stores' sales. For purposes of this analysis, the table below has assumed a growth of 7.5%. Considering the amount of increase in traffic is approximately 10%, a 7.5% growth in sales appears to a reasonably conservative assumption.

Once having determined the total amount of sales tax revenue, it was then necessary to reduce the existing and projected revenue by the amount of sales tax increment that is currently being diverted to the Redevelopment Agency to assist in paying the debt service on the certificates of participation that were issued to fund the public participation portion of the last major upgrade of the shopping center. Since the base amount of sales tax was set at the amount of actual tax revenue in 1986-87, the General Fund continues to receive $831,883 in sales tax revenue for funding of general government functions. The model of sales tax revenue projected that the actual amount of sales tax revenue in 1990-91 will be $1,243,169. Therefore, it has been assumed that the estimated $411,286 ($1,243,169 minus $831,883) in sales tax increment being used in 1990-91 will continue to be used to pay debt service, but that any further increases in sales tax would accrue to the General Fund. Based on this assumption, the amount of sales tax revenue accruing to the General Fund in 1993-94 is projected to be $1,062,802 as shown on the following table.

Table III-3
Chula Vista Shopping Center Expansion
Sales & Use Tax Revenue Projection
(in constant 1991 $)

Fiscal Year	Annual Revenue
1992	$831,883
1993	831,883
1994	1,062,802
1995	1,062,802
1996	1,062,802
1997	1,062,802
1998	1,062,802
1999	1,062,802

Franchise Tax

This revenue is derived from taxes placed on cable television, sanitary and gas & electric services provided within the City. The estimated city-wide revenue for 1990-91 from this source is $1,565,000.

The projections for this revenue source were based on $294.97 per commercial acre based on a breakdown of the current charges for each of the three utilities among residential and non-residential users and then on the average per dwelling unit and/or developed non-residential uses. The following table shows the comparison of this revenue source projection.

Table III-4
Chula Vista Shopping Center Expansion
Franchise Tax Revenue Projection
(in constant 1991 $)

Fiscal Year	Annual Revenue
1992	$4,985
1993	4,985
1994	5,752
1995	5,752
1996	5,752
1997	5,752
1998	5,752
1999	5,752

Utility Users Tax

The City levies taxes on the consumption of natural gas and electricity and on the gross revenue for telephone billings within the City. The current rates of these taxes are $0.0025 per kilowatt hour (KWH) of electricity, $0.00919 per therm of gas and 5% of the gross telephone revenues.

Based on a City of Los Angeles study, this analysis has assumed retail space consumption of electricity of 15 KWH per square foot per year and gas consumption of 0.75 therms per square foot per year. These rates of consumption times the current tax rates yield a tax revenue of $0.0444 per square foot per year. This amount was applied to the 769,307 square feet of gross leasable area (GLA) of the existing shopping center to arrive at the current revenue yield of $34,157. Applying this rate to the expanded GLA of 843,623 yields a tax revenue of $37,457, and increase of $3,300 per year.

Table III-5
Utility Users Tax Revenue Projection
(in constant 1991 $)

Fiscal Year	Annual Revenue
1992	$34,157
1993	34,157
1994	37,457
1995	37,457
1996	37,457
1997	37,457
1998	37,457
1999	37,457

Business Licenses

Business license revenue for 1991 is projected to be $377,000. Based on the number of acres of commercial and industrial land use in the City, this works out to be $162.07 per acre of commercial & industrial land use. Applying this factor to the net acres included in the Chula Vista Shopping Center yields a current business license revenue estimate of $2,739 and a projected estimate of $3,160 after the proposed expansion is completed.

Table III-6
Business Licenses Revenue Projection
(in constant 1991 $)

Fiscal Year	Annual Revenue
1992	$2,739
1993	2,739
1994	3,160
1995	3,160
1996	3,160
1997	3,160
1998	3,160
1999	3,160

Cigarette Tax

The revenue from cigarette taxes was estimated using the formula of 0.95% of sales tax revenues. The projected annual revenues are as follows:

Table III-7
Chula Vista Shopping Center Expansion
Cigarette Tax Revenue Projection
(in constant 1991 $)

Fiscal Year	Annual Revenue
1992	$7,903
1993	7,903
1994	10,097
1995	10,097
1996	10,097
1997	10,097
1998	10,097
1999	10,097

Investment Earnings

The City places its idle funds in interest bearing investments. Generally, as a City's total revenue increases, the amount of money available for investment also increases. This analysis, however, has assumed that only the net positive difference between annual revenue and expenditures will be available to earn interest. A rate of 7.5% has been assumed on this balance. Therefore, the following projections of interest earnings attributed to the Chula Vista Shopping Center represent 7.5% of the difference between the amount of total revenue and the amount of total costs in any one year.

Table III-8
Chula Vista Shopping Center Expansion
Investment Earnings Revenue Projection
(in constant 1991 $)

Fiscal Year	Annual Revenue
1992	$62,918
1993	62,934
1994	80,287
1995	80,306
1996	80,324
1997	80,342
1998	80,342
1999	80,342

CHAPTER IV - REDEVELOPMENT AGENCY

The Chula Vista Shopping Center lies within the Town Center II Project Area of the Chula Vista Redevelopment Agency. As such, the property tax increment generated from increases in assessed valuation of the property goes to the Redevelopment Agency rather than to the jurisdictions that would normally receive revenue from the property taxes on this property. According to the California Redevelopment Act, the Redevelopment Agency must utilize the revenue from this source to make expenditures that relieve the blighted conditions within the Project Area. Twenty percent of the tax increment is to be set aside specifically for assisting low and moderate income housing.

Table IV-1 shows the actual and projected assessed valuation of the Chula Vista Shopping Center through July 1, 1996. The projected assessed value for 1991, 1992 and 1993 is based on simply increasing existing assessed value by the constitutionally allowed two percent per year.

The projection of secured assessed value for 1994 is based on the income method of valuation which is typically applied to shopping center uses. This amount was based on Homart Development Company's projected net operating income (NOI) for 1994 using a 12% capitalization rate. It was then assumed that the amount of unsecured assessed value would increase in a proportionate amount to the secured assessed value. Future year valuations were then determined based on a two percent per year increase thereafter.

Table IV-1
Chula Vista Shopping Center
Assessed Valuation

As of:	Base A.V.	Secured(1)	Unsecured(2)	Total A.V.	Incremental A.V.
7/1/88	$24,090,018	$35,447,693	$3,824,672	$39,272,365	$15,182,347
7/1/89	24,090,018	59,641,645	6,078,348	65,719,993	41,629,975
7/1/90	24,090,018	60,727,715	7,424,954	68,152,669	44,062,651
7/1/91*	24,090,018	61,942,269	7,573,453	69,515,722	45,425,704
7/1/92*	24,090,018	63,181,115	7,724,922	70,906,037	46,816,019
7/1/93*	24,090,018	64,444,737	7,879,421	72,324,158	48,234,140
7/1/94*	24,090,018	79,840,940	9,761,858	89,602,797	65,512,779
7/1/95*	24,090,018	81,437,759	9,957,095	91,394,853	67,304,835
7/1/96*	24,090,018	83,066,514	10,156,237	93,222,750	69,132,732

* Estimated for 1991 and projected for 1992 through 1996
(1) Secured A.V. was increased by 2% per year until 1994. The 1994 value is based on Homart's projected added Net Operating Income for 1993 and a 12% capitalization rate.
(2) Unsecured A.V. was assumed to increase in 1994 by the same percentage as secured.

Sources: San Diego County Auditor & Controller; Homart Development Company; John McTighe & Associates' Projections

The amount of annual property tax increment to the Chula Vista Redevelopment Agency is shown on Table IV-2. This table also shows the amount of tax increment required for low and moderate income housing set aside and the remaining eighty percent of the total new tax increment since

the 1993 year which is amount available for the Agency to make expenditures for projects within the Project Area.

Table IV-2
Chula Vista Shopping Center
Redevelopment Agency Property Tax Increment

As of:	Annual Property Tax Increment	20% of Increased Property Tax Increment over 1993	80% of Increased Property Tax Increment over 1993
7/1/88	$151,823	n/a	n/a
7/1/89	416,300	n/a	n/a
7/1/90	440,627	n/a	n/a
7/1/91*	454,257	n/a	n/a
7/1/92*	468,160	n/a	n/a
7/1/93*	482,341	n/a	n/a
7/1/94*	655,128	34,557	138,229
7/1/95*	673,048	38,141	152,566
7/1/96*	691,327	41,797	167,189

CHAPTER V - ALTERNATIVES ANALYSIS

There have been four alternatives to the proposed expansion of the Chula Vista Shopping Center analyzed as to their fiscal impact. These are, in order:

No Project alternative = no changes from present condition.

Alternative #2 = Relocation of the proposed parking structure to the area where the Penney's Automotive Center is currently located.

Alternative #3 = Expansion of the project to include another major anchor (Department store).

Alternative #4 = Reduction of the project to exclude the major anchor (Mervyn's) and add an equivalent number of square feet of additional small retail spaces (includes Sav-On expansion & cinema).

The net fiscal impact on the City operating funds and the Redevelopment Agency of each of these alternatives is discussed in the following pages. The detail of the operating costs and revenues by year are shown in Appendix E.

No Project Alternative [Alternative #1]

The no project alternative would have a neutral effect on the City's operating costs and revenues. However, it is possible that the location of additional shopping center space in locations outside the City of Chula might have the effect of a gradual decline in the market share captured by the Chula Vista Shopping Center.

Relocation of the proposed parking structure to the area where the Penney's Automotive Center is currently located [Alternative #2]

The fiscal impact of this alternative is expected to be identical to that of the project. The table below summarizes the annual City operating cost and revenue resulting from this alternative.

Table V-1
Chula Vista Shopping Center Expansion Alternative #2
Projected Annual City Operating Revenues and Costs
(in constant 1991 $)

Fiscal Year	Revenue	Cost	Annual Net Impact	Revenue/ Cost Ratio
1992	$952,236	$42,754	$909,482	22.27
1993	952,251	42,553	909,698	22.38
1994	1,205,481	48,770	1,156,711	24.72
1995	1,205,499	48,524	1,156,975	24.84
1996	1,205,518	48,283	1,157,235	24.97
1997	1,205,535	48,045	1,157,491	25.09
1998	1,205,535	48,045	1,157,491	25.09
1999	1,205,535	48,045	1,157,491	25.09

Expansion of the project to include another major anchor (Department store) [Alternative #3]

This alternative would yield additional net revenue, provided there would be sufficient demand within the Chula Vista Shopping Center market area to warrant the addition of another anchor. There has been no market analysis conducted in conjunction with this fiscal analysis that would indicate such demand actually exists.

Table V-2
Chula Vista Shopping Center Expansion Alternative #3
Projected Annual City Operating Revenues and Costs
(in constant 1991 $)

Fiscal Year	Revenue	Cost	Annual Net Impact	Revenue/ Cost Ratio
1992	$989,022	$42,754	$946,268	23.13
1993	989,037	42,553	946,484	23.24
1994	1,379,401	53,268	1,326,133	25.90
1995	1,379,422	52,999	1,326,423	26.03
1996	1,379,441	52,734	1,326,708	26.16
1997	1,379,461	52,473	1,326,988	26.29
1998	1,379,461	52,473	1,326,988	26.29
1999	1,379,461	52,473	1,326,988	26.29

If the Chula Vista market would support another anchor department store, there would be an additional annual tax increment of approximately $243,818 made available to the Redevelopment Agency. Eighty percent of this amount is $195,055 for use in making improvements within the Project Area.

Reduction of the project to exclude the major anchor (Mervyn's) and add an equivalent number of square feet of additional small retail spaces (includes Sav-On expansion & cinema) [Alternative #4]

This alternative would again provide more net revenue to the City than the proposed project. However, it has not been determined that this is a feasible alternative from the standpoint of market demand. In fact, the configuration of a shopping center with only three anchors and as many individual shops as would be necessary under this alternative runs counter to the national trends for shopping center design. Table V-3 shows the operating funds impact of this alternative were it to prove to be feasible.

Table V-3
Chula Vista Shopping Center Expansion Alternative #4
Projected Annual City Operating Revenues and Costs
(in constant 1991 $)

Fiscal Year	Revenue	Cost	Annual Net Impact	Revenue/ Cost Ratio
1992	$989,022	$42,754	$946,268	23.13
1993	989,037	42,553	946,484	23.24
1994	1,263,601	48,770	1,214,831	25.91
1995	1,263,619	48,524	1,215,095	26.04
1996	1,263,637	48,283	1,215,355	26.17
1997	1,263,655	48,045	1,215,610	26.30
1998	1,263,655	48,045	1,215,610	26.30
1999	1,263,655	48,045	1,215,610	26.30

Alternative #4, if feasible, is expected to add annual tax increment of $172,786, of which 80% is $138,229. For purposes of this analysis it has been assumed that the NOI for the shopping center with the added mall shops would be the same as with the added department store.

In addition to the preceding four alternatives, there are three potential off-site alternatives that have been reviewed from a qualitative standpoint to assess their potential fiscal impact on the City and Redevelopment Agency. These are:

1. The expansion of Plaza Bonita (City of National City regional center) to include an additional major anchor (Department Store).

   This alternative would most likely result in a decline in the market share of shopping center business captured by the Chula Vista Shopping Center. Consequently, the City's sales tax revenue would decline. There could possibly be a negative impact on the Redevelopment Agency if the sales tax were to decline below the amount that is necessary to supplement the property tax increment for debt service payments on the existing certificates of participation.

2. Development of the proposed "Eastern Urban Center" in Otay Ranch.

   This alternative is difficult to evaluate without specific usages. However, it is possible that the pursuit of this alternative could eventually lead to a positive fiscal impact on the City since the population center of the City is moving in an easterly direction. The convenience of a major shopping center in the Eastern Territories would be attractive to residents of that area. The magnitude of the impact cannot be analyzed at this time. There would be no direct impact of this alternative on the Redevelopment Agency.

3. Development of the proposed "Village" in EastLake.

   This alternative would most likely have a similar impact as the previous one.

CHAPTER VI - SOCIOECONOMIC IMPACTS

The socioeconomic analysis is concerned with the effects the proposed expansion of the Chula Vista Shopping Center will have on the quality of life and the City's ability to continue to provide services to its residents. In addition, this analysis is concerned with the effect that the expansion of the shopping center might have on the businesses that currently exist in downtown Chula Vista.

The expansion of the shopping center as proposed with the addition of a new department store and multiple screen cinema and the expansion of the Sav-On Drug Store will lead to an increased quality of life for Chula Vista residents and employees. The availability of additional shopping opportunities combined with additional recreational opportunities will have a positive effect on the City.

The shopping center expansion as proposed would not likely have an impact on the existing businesses in the downtown Chula Vista, since the addition of a department store and cinema would not be in direct competition with other uses in the downtown area. The expansion of the Sav-On Drug store could have a slight impact on some variety businesses in the downtown, but any such impact is expected to be minor, since the drug store would not actually be drawing new customers to it away from other stores.

With respect to the alternatives, the no project alternative would not have an immediate socioeconomic impact on the City. However, over the long term, this alternative could lead to a gradual decline in quality of life as shopping opportunities within the City's downtown lag behind the demand for such opportunities.

The relocation of the proposed parking structure to the area where the Penney's Automotive Center is currently located (alternative #2) should have the same socioeconomic impact as the proposed project.

Expansion of the project to include another major department store (Alternative #3) would have a positive socioeconomic impact from the standpoint of further expanding the shopping opportunities to the City's residents and employees.

Reduction of the project to exclude the major anchor and adding an equivalent number of square feet of additional small retail spaces (Alternative #4) would most likely have a positive impact on the overall quality of life by increasing shopping opportunities, but would most likely have a negative impact on existing businesses in the downtown area. This negative impact would derive from the possible location within the shopping center of small retail businesses that would be in direct competition with the small retail business in the downtown area.

The expansion of Plaza Bonita (City of National City regional center) to include an additional department store would likely have a negative socioeconomic impact on the City in the form of long term reduced retail sales within the City of Chula Vista leading to less general revenue available to support City services.

Development of the proposed "Eastern Urban Center" in Otay Ranch rather than expansion of the Chula Vista Shopping Center might have an overall long term positive socioeconomic impact on the City if Otay Ranch is annexed to the City. In the short term this alternative would likely have a neutral to negative impact since shopping opportunities in the City might fall behind demand until such time that the Otay Ranch develops.

Development of the proposed "Village" in EastLake, like the previous alternative, might have an overall long term positive socioeconomic impact on the City. But, also similar to the previous alternative, the time frame for development of the Village might extend to the point where shopping opportunities in the City might fall behind demand.

APPENDIX A

CITY OF CHULA VISTA COST ALLOCATION
1990-91 Adopted Budget

Department/Activity	Employee Services	Other Services	Capital Outlay	1990-91 Total	Indirect Costs to be Allocated	Direct Cost Base	Indirect Cost Allocation	Grand Total
Building & Equipment								
GENERAL GOVERNMENT & NON-DEPARTMENTAL								
City Council	$203,460	$66,090	$0	$269,550	$0	$203,460	$38,672	$308,222
Boards & Commissions	9,100	34,740	0	43,840	0	9,100	1,730	45,570
Community Promotions	0	23,810	0	23,810	0	0	0	23,810
City Attorney	440,020	128,720	21,070	589,810	0	440,020	83,635	652,375
City Clerk/Elections	187,775	75,614	21,280	284,669	0	187,775	35,690	299,079
Administration	833,100	91,080	9,390	933,570	(816,180)	108,000	20,528	128,528
Management Services	896,950	323,520	0	1,220,470	(1,220,470)	0	0	0
Personnel Department	682,030	227,332	18,953	928,315	(909,362)	0	0	0
Finance/Purchasing	1,000,360	151,243	12,585	1,164,188	(1,076,603)	75,000	14,255	89,255
Insurance	0	639,360	2,300	641,660	(639,360)	0	0	0
Non-Departmental	($543,800)	194,850	10,600	($338,350)	348,950	0	0	0
SUB-TOTAL GENL. GOV'T. & NON-DEPARTMENTAL	$3,708,995	$1,956,359	$96,178	$5,761,532	($4,313,025)	$1,023,355	$194,509	$1,546,838
PLANNING	$1,257,410	$205,900	$17,310	$1,480,620	$0	$1,257,410	$238,996	$1,702,306
OTAY RANCH PROJECT	$200,590	$0	$0	$200,590	$0	$200,590	$38,126	$238,716
COMMUNITY DEVELOPMENT	$878,380	$135,650	$2,880	$1,016,910	$0	$878,380	$166,954	$1,180,984
POLICE/ANIMAL REGULATION	$12,568,780	$1,773,710	$65,460	$14,407,950	$0	$12,568,780	$2,388,953	$16,731,443
FIRE PROTECTION	$5,153,700	$421,650	$59,650	$5,635,000	$0	$5,153,700	$979,566	$6,554,916
BUILDING & HOUSING								
Administration	$134,660	$15,460	$0	$150,120	($150,120)	$0	$0	$0
Communications	156,190	21,200	0	177,390	(201,357)	0	0	0
Building Inspection	822,120	51,300	1,500	874,920	126,153	822,120	156,261	1,155,834
SUB-TOTAL	$1,112,970	$87,960	$1,500	$1,202,430	($225,324)	$822,120	$156,261	$1,155,834

CITY OF
CHULA VISTA

PLANNING & BUILDING DEPARTMENT

Friday, February 08, 2008

NAPA PLACE L P
P O BOX 181679
CORONADO CA 92178

RE: TRASH, JUNK & DEBRIS PILED UP IN BACK OF HOUSE
445 FIRST AVE. CHULA VISTA, CA 91910

Recently the City of Chula Vista was notified that a violation may be occurring at the above-referenced address. The condition, as alleged, violates the Chula Vista Municipal Code and has been reported as follows:

Trash and debris
Municipal Code Section 8.24.060
Excessive accumulation of trash and debris

Municipal Code violations can create fire and life safety hazards and contribute to a negative image of the community. It is the intent of the City of Chula Vista to familiarize citizens with municipal code requirements when a violation occurs. This letter is intended to notify you of the alleged violation and provide you the opportunity to voluntarily correct the violation.

If this condition exists, to bring the property into compliance, you must:
- Remove all excess trash and debris from side and/or rear yards.
- Maintain premises in a clean and sanitary condition.

We encourage you to correct this violation within ten (10) days from the date of this letter. If we work as a team, we can put an end to, or at least significantly reduce, the violations that deteriorate our City. Failure to take corrective action may be cause for further enforcement actions. These actions include, but may not be limited to, administrative citations, criminal prosecution, civil penalties, administrative abatement, revocation of permits, and/or Recordation of a Notice of Violation.

Thank you for doing your part in solving problems in our community. Your cooperation and understanding is appreciated. If you have questions, feel an appointment is necessary, or have abated the violation(s), please call (619) 691-5280.

Sincerely,

J. R. Provencher
Sr. Code Enforcement Officer

xc: Tenant if applicable

PRIDE AT WORK

276 Fourth Avenue
Chula Vista, CA 91910

CITY OF VISTA COST ALLOCATION
Allocation Factors

ASSUMPTIONS:

1990 Population	131,603
Base # of ADTs	1,148,034.60
Miles of Street	275
MGDs of Sewage	11.12
Acs. of park land	317.65
Acs. of Open Space	700

DEPARTMENT/FUNCTION	*ALLOCATION BASIS*	*AMOUNT*
General Government	Constant Cost	
Planning	One Time	
Community Development	Constant Cost	
Police/Animal Control	Per Capita	$127.14 /Capita
Fire Protection	Constant Cost	
Building & Housing	One Time	
Public Works		
Street Maintenance	50%/Mile of Street	$2,785.54 /Mi. of Street
	50% per ADT	$0.67 /ADT
Street Sweeping	Per mile of Street	$1,356.18 /Mi. of Street
Street Tree Maintenance	Per mile of Street	$2,300.70 /Mi. of Street
Traffic Operations	50%/Mile of street &	$898.05 /Mi. of Street
	50% per ADT	$0.22 /ADT
T.S./St. Lt. Maintenance	Per mile of Street	$4,146.47 /Mi. of Street
Sewer System Maint.	Per MGD of Sewer Flow	$106,087.46 /MGD
Pump Station Maintenance	Per MGD of Sewer Flow	$18,895.92 /MGD
Enginnering	One Time	
Parks & Recreation		
Recreation	Per Capita	$12.76 /Capita
Park Maintenance	Per Acre of Park Land	$6,857.72 /Ac. of Parkland
Open Space Administration	Per Acre of Open Space	$376.40 /Ac. of Open Space
Library	Per Capita	$23.31 /Capita
METROPOLITAN SEWER CHARGE	Per MG of Annual discharge	$646.00 /MG/Yr.

Source: City of Chula Vista 1990-91 Budget; John McTighe & Associates' Cost Allocation Model

APPENDIX B

City of Chula Vista
Chula Vista Shopping Center
Proposed Project

Summary of Projected
Operating Expenditures

DEPARTMENT/ACTIVITY	Fiscal Year 1992	1993	1994	1995	1996	1997	1998	1999
PUBLIC WORKS								
Street Maintenance	$20,284	$20,284	$22,286	$22,286	$22,286	$22,286	$22,286	$22,286
Traffic Operations	6,540	6,540	7,185	7,185	7,185	7,185	7,185	7,185
SUB-TOTAL PUBLIC WORKS	$26,824	$26,824	$29,471	$29,471	$29,471	$29,471	$29,471	$29,471
FIRE	$15,930	$15,729	$19,299	$19,053	$18,812	$18,574	$18,574	$18,574
TOTAL	$42,754	$42,553	$48,770	$48,524	$48,283	$48,045	$48,045	$48,045
CUMULATIVE TOTAL	$42,754	$85,307	$134,077	$182,601	$230,884	$278,928	$326,973	$375,018

APPENDIX C

City of Chula Vista
Chula Vista Shopping Center
Proposed Project

Summary of Projected City
Operating Revenue

Revenue Source	Fiscal Year							
	1992	1993	1994	1995	1996	1997	1998	1999
GENERAL FUND								
Property Tax	$44,436	$44,436	$44,436	$44,436	$44,436	$44,436	$44,436	$44,436
Sales & Use	831,883	831,883	1,062,802	1,062,802	1,062,802	1,062,802	1,062,802	1,062,802
Franchise Taxes	4,985	4,985	5,752	5,752	5,752	5,752	5,752	5,752
Utility Users	34,157	34,157	37,457	37,457	37,457	37,457	37,457	37,457
Business Licenses	2,739	2,739	3,160	3,160	3,160	3,160	3,160	3,160
Cigarette Taxes	7,903	7,903	10,097	10,097	10,097	10,097	10,097	10,097
Investment Earnings	62,918	62,934	80,287	80,306	80,324	80,342	80,342	80,342
GENERAL FUND TOTAL	$989,022	$989,037	$1,243,991	$1,244,009	$1,244,028	$1,244,045	$1,244,045	$1,244,045

APPENDIX D

Existing Chula Vista Shopping Center
Estimated City Sales Tax Revenue Yield

Assumptions:

1991 Inflation Rate = 4.50%

Sales Coefficient = 8.22%

All 555 Broadway, listed by suite #

Suite #	Name of Business	Store Type	1990 Median Sales per S.F.*	Square Feet	Estimated 1991 Annual Sales	Percent Taxable	Estimated City Sales Tax
100	Streicher's Shoes	Men's Shoes	$257.42	4,800	$1,397,344	100%	$13,973
102	Raya's Store For Men	Men's Apparel	190.27	3,600	774,627	100%	7,746
104	Leeds Shoes	Ladies' Shoes	203.01	3,600	826,494	100%	8,265
106	Oak Tree	Men's Apparel	190.27	2,802	602,918	100%	6,029
108	Little Folks	Children's Clothes	187.73	3,171	673,208	100%	6,732
112	Guadalajara Jewelers	Jewelry	452.33	854	436,851	100%	4,369
114	Rave	Ladies' Apparel	150.47	3,021	514,068	100%	5,141
116	Miller's Outpost	Unisex/Jean Shop	181.70	9,600	1,972,631	100%	19,726
120	Payless Shoe Source	Ladies' Shoes	203.01	3,500	803,536	100%	8,035
122	Bigger 'n Better	Ladies' Specialties	174.51	4,000	789,405	100%	7,894
124	Hardy Shoes	Men's Shoes	257.42	1,200	349,336	100%	3,493
126	See's Candies	Candy & Nuts	270.74	1,244	380,884	100%	3,809
128	Kinney Shoes	Family Shoes	141.58	3,000	480,333	100%	4,803
130	Footlocker	Athletic Footwear	285.56	2,500	807,341	100%	8,073
132	Dr. Suder, Optometrist	Services	341.00	2,750	1,060,490	50%	5,302
134	Lerner	Ladies' Apparel	150.47	7,250	1,233,694	100%	12,337
136	Wild Pair	Ladies' Shoes	203.01	1,080	247,948	100%	2,479
138	Farr's Hallmark	Cards & Gifts	147.16	7,212	1,200,232	100%	12,002
140	Yardage City	Fabric Shop	96.73	7,739	846,576	100%	8,466
142	Waldenbooks	Books	200.10	3,232	731,372	100%	7,314
144	Coleman College	Services	0.00	11,480	0	0%	0
521	Durbin's Coin Laundry	Services		1,375	0	0%	0
523	Half Hour Perma Clean	Services		1,100	0	0%	0
527	Hank and Paul's Barber Shop	Services	142.21	675	108,556	0%	0
	Vacant	Vacant		1,000	0	0%	0
	Vacant	Vacant		1,100	0	0%	0
531	Winchell's Donuts	Doughnut/Muffin Shop	186.73	1,500	316,756	100%	3,168
535	The D's Hydrocal Shop	Arts & Crafts	101.91	1,100	126,774	100%	1,268
541	Savon Drugs	Drug Store	172.28	21,834	4,253,905	80%	34,031
555	Former Vons Grocery Store	Vacant	0.00	31,000	0	0%	0
565	Security Pacific	Services	0.00	6,000	0	0%	0
585	The Olive Garden	Restaurant with Liquor	217.20	12,000	2,947,547	100%	29,475

Existing Chula Vista Shopping Center
Estimated City Sales Tax Revenue Yield

Assumptions:

1991 Inflation Rate = 4.50%

Sales Coefficient = 8.22%

All 555 Broadway, listed by suite #

Suite #	Name of Business	Store Type	1990 Median Sales per S.F.*	Square Feet	Estimated 1991 Annual Sales	Percent Taxable	Estimated City Sales Tax
598	Allie's Restaurant	Restaurant	179.50	6,000	1,217,967	100%	12,180
599	Burger King	Fast Food	264.82	3,600	1,078,135	100%	10,781
1000	Shades of California	Other Retail	190.76	205	44,224	100%	442
1001	J. Burton Jewelers	Jewelry	452.33	1,197	612,307	100%	6,123
1002	T-Shirt Plus	Special Apparel/Unisex	226.18	1,017	260,133	100%	2,601
1006	Little Kid's Wear	Children's Apparel	187.73	1,563	331,827	100%	3,318
1008	Coach House Gift	Cards & Gifts	147.16	3,245	540,038	100%	5,400
1012	Fiorici Fashions	Ladies' Apparel	150.47	1,393	237,039	100%	2,370
1016	Furniture Profiles	Home Furnishings	206.86	6,929	1,620,939	100%	16,209
1018	Pleasant House of Nat. Foods	Health Food	181.07	2,014	412,407	100%	4,124
1019	Mgmt. and Leasing Office	Services	0.00		0	0%	0
1020	Home Delights	Home Accessories	174.34	1,149	226,536	100%	2,265
1022	Swimwear Boutique	Ladies' Specialties	174.51	493	97,294	100%	973
1024	Claire's Boutique	Ladies' Specialties	174.51	1,232	243,137	100%	2,431
1026	Lane Bryant	Ladies' Specialties	174.51	5,510	1,087,406	100%	10,874
1030	Gabriel's	Ladies' Apparel	150.47	2,037	346,626	100%	3,466
1032	Merksamer Jeweler	Jewelry	452.33	1,200	613,842	100%	6,138
1034	Charlotte Russe	Ladies' Apparel	150.47	8,217	1,398,244	100%	13,982
1036	Wet Seal	Ladies' Apparel	150.47	3,725	633,864	100%	6,339
1038	Gordon's Jewelers	Jewelry	452.33	1,000	511,535	100%	5,115
1040	Jay Jacobs	Men's & Women's Apparel	177.99	4,178	840,976	100%	8,410
1044	Chess King	Men's Apparel	190.27	2,160	464,776	100%	4,648
1050	Pro Image	Special Apparel-Unisex	226.18	1,159	296,454	100%	2,965
1056	Haircut Company	Unisex Hair	186.67	1,292	272,745	0%	0
1060	Diamond Designs	Jewelry	452.33	2,148	1,098,776	100%	10,988
1066	Uforia	Cards & Gifts	147.16	1,159	192,883	100%	1,929
1068	Wilson's Suede and Leather	Leather Shop	313.75	1,852	657,120	100%	6,571
1070	Sam Goody's MusicLand	Records & Tapes	246.89	2,228	622,069	100%	6,221
1076	Pearle Vision Express	Eyeglasses - Optician	242.19	3,148	862,205	100%	8,622
1078	Oro Maya Jewelers	Jewelry	452.33	780	398,997	100%	3,990
1080	Vacant			778	0		0
1082	Weisfield's Jewelry	Jewelry	452.33	1,327	678,806	100%	6,788

Existing Chula Vista Shopping Center
Estimated City Sales Tax Revenue Yield

Assumptions:
1991 Inflation Rate = 4.50%
Sales Coefficient = 8.22%

All 555 Broadway, listed by suite #

Suite #	Name of Business	Store Type	1990 Median Sales per S.F.*	Square Feet	Estimated 1991 Annual Sales	Percent Taxable	Estimated City Sales Tax
1084	Lady Footlocker	Athletic Footwear	285.56	1,495	482,790	100%	4,828
1086	5*7*9	Ladies' Specialties	174.51	1,370	270,371	100%	2,704
1088	Fan Club	Athletic Footwear	285.56	2,257	728,868	100%	7,289
1090	JW	Men's Apparel	190.27	1,163	250,247	100%	2,502
1092	Compagnie Intern'l Express	Ladies' Apparel	150.47	5,704	970,620	100%	9,706
1096	Richard's Luggage	Luggage	205.67	2,498	581,009	100%	5,810
1098	Inner City	Men's Apparel	190.27	2,968	638,637	100%	6,386
1100	Zales	Jewelry	452.33	1,312	671,133	100%	6,711
2000	Califronia Yogurt Co.	Yogurt Shop	208.42	634	149,434	100%	1,494
2004	Great Amer. Cookie	Cookie Shop	246.49	709	197,636	100%	1,976
2010	KayBee Toys	Toys	187.02	3,924	829,921	100%	8,299
2014	Tilt Game Room	Arcade, Amusement	113.37	2,153	276,034	100%	2,760
2016	The Wherehouse	Records & Tapes	246.89	6,263	1,748,661	100%	17,487
2018	L.A. Nails	Services	208.30	661	155,708	0%	0
2020	Sports Originals	Special Apparel-Unisex	226.18	1,103	282,130	100%	2,821
2024	Kay Jewelers	Jewelry	452.33	1,113	569,338	100%	5,693
2028	Goody Goody Ice Cream	Ice Cream	251.29	739	210,010	100%	2,100
2029	Scripps Well Being	Services	0.00	1,815	0	0%	0
2030	HotDog on a Stick	Fast Food	264.82	896	268,336	100%	2,683
2034	Bocadillos Mex. Cafe	Fast Food	264.82	1,100	329,430	100%	3,294
2036	Chopstix Chinese Cafe	Fast Food	264.82	1,213	363,271	100%	3,633
2042	Sbarro Italian Eatery	Fast Food	264.82	1,156	346,201	100%	3,462
2044	OrangeJul/DQ/KarmelKorn	Fast Food	264.82	1,078	322,841	100%	3,228
	JC Penney	Department Store	134.37	86,729	13,179,117	100%	131,791
	Sears	Department Store	134.37	249,000	37,837,404	100%	378,374
	The Broadway	Department Store	134.37	150,000	22,793,617	100%	227,936
	Total			769,307	$126,234,892		$1,243,169

* from Urban Land Institute's Dollars & Cents of Shopping Centers, 1990, U.S. Regional Shopping Centers

Proposed Expanded Chula Vista Shopping Center
Estimated City Sales Tax Revenue Yield with New Department Store

Assumptions:

1991 Inflation Rate = 4.50%
Sales Coefficient = 8.22%
Growth Factor = 0.00%

All 555 Broadway, listed by suite #

Suite #	Name of Business	Store Type	1990 Median Sales per S.F.*	Square Feet	Estimated 1994 Annual Sales (in 1991 $)	Percent Taxable	Estimated City Sales Tax
100	Streicher's Shoes	Men's Shoes	$257.42	4,800	$1,397,344	100%	$13,973
102	Raya's Store For Men	Men's Apparel	190.27	3,600	774,627	100%	7,746
104	Leeds Shoes	Ladies' Shoes	203.01	3,600	826,494	100%	8,265
106	Oak Tree	Men's Apparel	190.27	2,802	602,918	100%	6,029
108	Little Folks	Children's Clothes	187.73	3,171	673,208	100%	6,732
112	Guadalajara Jewelers	Jewelry	452.33	854	436,851	100%	4,369
114	Rave	Ladies' Apparel	150.47	3,021	514,068	100%	5,141
116	Miller's Outpost	Unisex/Jean Shop	181.70	9,600	1,972,631	100%	19,726
120	Payless Shoe Source	Ladies' Shoes	203.01	3,500	803,536	100%	8,035
122	Bigger 'n Better	Ladies' Specialties	174.51	4,000	789,405	100%	7,894
124	Hardy Shoes	Men's Shoes	257.42	1,200	349,336	100%	3,493
126	See's Candies	Candy & Nuts	270.74	1,244	380,884	100%	3,809
128	Kinney Shoes	Family Shoes	141.58	3,000	480,333	100%	4,803
130	Footlocker	Athletic Footwear	285.56	2,500	807,341	100%	8,073
132	Dr. Suder, Optometrist	Services	341.00	2,750	1,060,490	50%	5,302
134	Lerner	Ladies' Apparel	150.47	7,250	1,233,694	100%	12,337
136	Wild Pair	Ladies' Shoes	203.01	1,080	247,948	100%	2,479
138	Farr's Hallmark	Cards & Gifts	147.16	7,212	1,200,232	100%	12,002
140	Yardage City	Fabric Shop	96.73	7,739	846,576	100%	8,466
142	Waldenbooks	Books	200.10	3,232	731,372	100%	7,314
144	Coleman College	Services	0.00	11,480	0	0%	0
521	Durbin's Coin Laundry	Services	0.00	0	0	0%	0
523	Half Hour Perma Clean	Services	0.00	0	0	0%	0
527	Hank and Paul's Barber Shop	Services	142.21	0	0	0%	0
	Vacant	Vacant		0	0	0%	0
	Vacant	Vacant		0	0	0%	0
531	Winchell's Donuts	Doughnut/Muffin Shop	186.73	0	0	100%	0
535	The D's Hydrocal Shop	Arts & Crafts	101.91	0	0	100%	0
541	Savon Drugs	Drug Store	172.28	23,400	4,559,008	80%	36,472
555	Former Vons Grocery Store	Vacant	0.00	0	0	0%	0
565	Security Pacific	Services	0.00	0	0	0%	0
585	The Olive Garden	Restaurant with Liquor	217.20	12,000	2,947,547	100%	29,475

Proposed Expanded Chula Vista Shopping Center
Estimated City Sales Tax Revenue Yield with New Department Store

Assumptions:
1991 Inflation Rate = 4.50%
Sales Coefficient = 8.22%
Growth Factor = 0.00%

All 555 Broadway, listed by suite # Suite #	Name of Business	Store Type	1990 Median Sales per S.F.*	Square Feet	Estimated 1994 Annual Sales (in 1991 $)	Percent Taxable	Estimated City Sales Tax
598	Allie's Restaurant	Restaurant	179.50	6,000	1,217,967	100%	12,180
599	Burger King	Fast Food	264.82	3,600	1,078,135	100%	10,781
1000	Shades of California	Specialty	190.76	205	44,224	100%	442
1001	J. Burton Jewelers	Jewelry	452.33	1,197	612,307	100%	6,123
1002	T-Shirt Plus	Special Apparel/Unisex	226.18	1,017	260,133	100%	2,601
1006	Little Kid's Wear	Children's Apparel	187.73	1,563	331,827	100%	3,318
1008	Coach House Gift	Cards & Gifts	147.16	3,245	540,038	100%	5,400
1012	Florici Fashions	Ladies' Apparel	150.47	1,393	237,039	100%	2,370
1016	Furniture Profiles	Home Furnishings	206.86	6,929	1,620,939	100%	16,209
1018	Pleasant House of Nat. Foods	Health Food	181.07	2,014	412,407	100%	4,124
1019	Mgmt. and Leasing Office	Services	0.00	0	0	0%	0
1020	Home Delights	Home Accessories	174.34	1,149	226,536	100%	2,265
1022	Swimwear Boutique	Ladies' Specialties	174.51	493	97,294	100%	973
1024	Claire's Boutique	Ladies' Specialties	174.51	1,232	243,137	100%	2,431
1026	Lane Bryant	Ladies' Specialties	174.51	5,510	1,087,406	100%	10,874
1030	Gabriel's	Ladies' Apparel	150.47	2,037	346,626	100%	3,466
1032	Merksamer Jeweler	Jewelry	452.33	1,200	613,842	100%	6,138
1034	Charlotte Russe	Ladies' Apparel	150.47	8,217	1,398,244	100%	13,982
1036	Wet Seal	Ladies' Apparel	150.47	3,725	633,864	100%	6,339
1038	Gordon's Jewelers	Jewelry	452.33	1,000	511,535	100%	5,115
1040	Jay Jacobs	Men's & Women's Apparel	177.99	4,178	840,976	100%	8,410
1044	Chess King	Men's Apparel	190.27	2,160	464,776	100%	4,648
1050	Pro Image	Specialty	226.18	1,159	296,454	100%	2,965
1056	Haircut Company	Unisex Hair	186.67	1,292	272,745	0%	0
1060	Diamond Designs	Jewelry	452.33	2,148	1,098,776	100%	10,988
1066	Uforia	Cards & Gifts	147.16	1,159	192,883	100%	1,929
1068	Wilson's Suede and Leather	Leather Shop	313.75	1,852	657,120	100%	6,571
1070	Sam Goody's MusicLand	Records & Tapes	246.89	2,228	622,069	100%	6,221
1076	Pearle Vision Express	Eyeglasses - Optician	242.19	3,148	862,205	100%	8,622
1078	Oro Maya Jewelers	Jewelry	452.33	780	398,997	100%	3,990
1080	Vacant		0.00	778	0		0
1082	Weisfield's Jewelry	Jewelry	452.33	1,327	678,806	100%	6,788

Proposed Expanded Chula Vista Shopping Center
Estimated City Sales Tax Revenue Yield with New Department Store

Assumptions:

1991 Inflation Rate = 4.50%
Sales Coefficient = 8.22%
Growth Factor = 0.00%

All 555 Broadway, listed by suite #

Suite #	Name of Business	Store Type	1990 Median Sales per S.F.*	Square Feet	Estimated 1994 Annual Sales (in 1991 $)	Percent Taxable	Estimated City Sales Tax
1084	Lady Footlocker	Athletic Footwear	285.56	1,495	482,790	100%	4,828
1086	5*7*9	Ladies' Specialties	174.51	1,370	270,371	100%	2,704
1088	Fan Club	Athletic Footwear	285.56	2,257	728,868	100%	7,289
1090	JW	Men's Apparel	190.27	1,163	250,247	100%	2,502
1092	Compagnie Intern'l Express	Ladies' Apparel	150.47	5,704	970,620	100%	9,706
1096	Richard's Luggage	Luggage	205.67	2,498	581,009	100%	5,810
1098	Inner City	Men's Apparel	190.27	2,968	638,637	100%	6,386
1100	Zales	Jewelry	452.33	1,312	671,133	100%	6,711
2000	Califronia Yogurt Co.	Yogurt Shop	208.42	634	149,434	100%	1,494
2004	Great Amer. Cookie	Cookie Shop	246.49	709	197,636	100%	1,976
2010	KayBee Toys	Toys	187.02	3,924	829,921	100%	8,299
2014	Tilt Game Room	Arcade, Amusement	113.37	2,153	276,034	100%	2,760
2016	The Wherehouse	Records & Tapes	246.89	6,263	1,748,661	100%	17,487
2018	L.A. Nails	Services	208.30	661	155,708	0%	0
2020	Sports Originals	Specialty	226.18	1,103	282,130	100%	2,821
2024	Kay Jewelers	Jewelry	452.33	1,113	569,338	100%	5,693
2028	Goody Goody Ice Cream	Ice Cream	251.29	739	210,010	100%	2,100
2029	Scripps Well Being	Services	0.00	1,815	0	0%	0
2030	HotDog on a Stick	Fast Food	264.82	896	268,336	100%	2,683
2034	Bocadillos Mex. Cafe	Fast Food	264.82	1,100	329,430	100%	3,294
2036	Chopstix Chinese Cafe	Fast Food	264.82	1,213	363,271	100%	3,633
2042	Sbarro Italian Eatery	Fast Food	264.82	1,156	346,201	100%	3,462
2044	OrangeJul/DQ/KarmelKorn	Fast Food	264.82	1,078	322,841	100%	3,228
	JC Penney	Department Store	134.37	86,729	13,179,117	100%	131,791
	Sears	Department Store	134.37	249,000	37,837,404	100%	378,374
	The Broadway	Department Store	134.37	150,000	22,793,617	100%	227,936
	Mervyn's	Department Store	134.37	81,600	12,399,728	100%	123,997
	Cinema	Cinema	57.19	36,000	2,328,318	25%	5,821
	Total			843,623	$140,715,955		$1,370,992

* from Urban Land Institute's Dollars & Cents of Shopping Centers, 1990, U.S. Regional Shopping Centers

Proposed Expanded Chula Vista Shopping Center
Estimated City Sales Tax Revenue Yield with New Department Store

Assumptions:

1991 Inflation Rate = 4.50%
Sales Coefficient = 8.22%
Growth Factor = 0.00%

Store Type	1990 Median Sales per S.F.*	Square Feet	Estimated 1994 Annual Sales (in 1991 $)	Percent Taxable	Estimated City Sales Tax
Arcade, Amusement	$113.37	2,153	$276,034	100%	$2,760
Athletic Footwear	285.56	6,252	2,018,999	100%	20,190
Books	200.10	8,747	1,979,474	100%	19,795
Candy & Nuts	270.74	1,285	393,344	100%	3,933
Cards & Gifts	147.16	13,634	2,269,029	100%	22,690
Children's Apparel	187.73	4,734	1,005,036	100%	10,050
Cinema	57.19	36,000	2,328,318	25%	5,821
Cookie Shop	246.49	709	197,636	100%	1,976
Department Store	134.37	485,729	73,810,138	100%	738,101
Drug Store	172.28	23,400	4,559,008	80%	36,472
Eyeglasses - Optician	242.19	3,148	862,205	100%	8,622
Fabric Shop	96.73	7,739	846,576	100%	8,466
Family Shoes	141.58	19,966	3,196,778	100%	31,968
Fast Food	264.82	9,043	2,708,214	100%	27,082
Health Food	181.07	2,014	412,407	100%	4,124
Home Accessories	174.34	1,149	226,536	100%	2,265
Home Furnishings	206.86	6,929	1,620,939	100%	16,209
Ice Cream	251.29	739	210,010	100%	2,100
Jewelry	452.33	10,931	5,591,585	100%	55,916
Ladies' Apparel	150.47	66,258	11,274,806	100%	112,748
Ladies' Shoes	203.01	8,180	1,877,978	100%	18,780
Ladies' Specialties	174.51	14,114	2,785,441	100%	27,854
Leather Shop	313.75	1,852	657,120	100%	6,571
Luggage	205.67	2,498	581,009	100%	5,810
Men's & Women's Apparel	177.99	4,178	840,976	100%	8,410
Men's Apparel	190.27	16,154	3,476,016	100%	34,760
Men's Shoes	257.42	6,000	1,746,679	100%	17,467
Records & Tapes	246.89	8,491	2,370,730	100%	23,707
Restaurant	179.50	6,000	1,217,967	100%	12,180
Restaurant with Liquor	217.20	12,000	2,947,547	100%	29,475
Services		16,706	0	100%	0
Special Apparel/Unisex	226.18	3,430	877,279	100%	8,773

Proposed Expanded Chula Vista Shopping Center
Estimated City Sales Tax Revenue Yield with New Department Store

Assumptions:

1991 Inflation Rate = 4.50%
Sales Coefficient = 8.22%
Growth Factor = 0.00%

Store Type	1990 Median Sales per S.F.*	Square Feet	Estimated 1994 Annual Sales (in 1991 $)	Percent Taxable	Estimated City Sales Tax
Specialty	190.76	2,467	532,202	100%	5,322
Toys	187.02	10,020	2,119,151	100%	21,192
Unisex Hair	186.67	1,292	272,745	0%	0
Unisex/Jean Shop	181.70	9,600	1,972,631	100%	19,726
Yogurt Shop	208.42	634	149,434	100%	1,494
Costume Jewelry	262.60	1,514	449,737	100%	4,497
Radio, video, stereo	246.58	3,853	1,074,426	100%	10,744
Total		839,543	$141,736,137		$1,388,054

* from Urban Land Institute's Dollars & Cents of Shopping Centers, 1990, U.S. Regional Shopping Centers

Proposed Expanded Chula Vista Shopping Center
Estimated City Sales Tax Revenue Yield with New Department Store

Assumptions:

1991 Inflation Rate = 4.50%
Sales Coefficient = 8.22%
Growth Factor = 2.50%

All 555 Broadway, listed by suite #

Suite #	Name of Business	Store Type	1990 Median Sales per S.F.*	Square Feet	Estimated 1994 Annual Sales (in 1991 $)	Percent Taxable	Estimated City Sales Tax
100	Streicher's Shoes	Men's Shoes	$257.42	4,800	$1,432,277	100%	$14,323
102	Raya's Store For Men	Men's Apparel	190.27	3,600	793,992	100%	7,940
104	Leeds Shoes	Ladies' Shoes	203.01	3,600	847,156	100%	8,472
106	Oak Tree	Men's Apparel	190.27	2,802	617,991	100%	6,180
108	Little Folks	Children's Clothes	187.73	3,171	690,039	100%	6,900
112	Guadalajara Jewelers	Jewelry	452.33	854	447,772	100%	4,478
114	Rave	Ladies' Apparel	150.47	3,021	526,919	100%	5,269
116	Miller's Outpost	Unisex/Jean Shop	181.70	9,600	2,021,947	100%	20,219
120	Payless Shoe Source	Ladies' Shoes	203.01	3,500	823,624	100%	8,236
122	Bigger 'n Better	Ladies' Specialties	174.51	4,000	809,140	100%	8,091
124	Hardy Shoes	Men's Shoes	257.42	1,200	358,069	100%	3,581
126	See's Candies	Candy & Nuts	270.74	1,244	390,406	100%	3,904
128	Kinney Shoes	Family Shoes	141.58	3,000	492,342	100%	4,923
130	Footlocker	Athletic Footwear	285.56	2,500	827,525	100%	8,275
132	Dr. Suder, Optometrist	Services	341.00	2,750	1,087,003	50%	5,435
134	Lerner	Ladies' Apparel	150.47	7,250	1,264,537	100%	12,645
136	Wild Pair	Ladies' Shoes	203.01	1,080	254,147	100%	2,541
138	Farr's Hallmark	Cards & Gifts	147.16	7,212	1,230,238	100%	12,302
140	Yardage City	Fabric Shop	96.73	7,739	867,740	100%	8,677
142	Waldenbooks	Books	200.10	3,232	749,656	100%	7,497
144	Coleman College	Services	0.00	11,480	0	0%	0
521	Durbin's Coin Laundry	Services	0.00	0	0	0%	0
523	Half Hour Perma Clean	Services	0.00	0	0	0%	0
527	Hank and Paul's Barber Shop	Services	142.21	0	0	0%	0
	Vacant	Vacant		0	0	0%	0
	Vacant	Vacant		0	0	0%	0
531	Winchell's Donuts	Doughnut/Muffin Shop	186.73	0	0	100%	0
535	The D's Hydrocal Shop	Arts & Crafts	101.91	0	0	100%	0
541	Savon Drugs	Drug Store	172.28	23,400	4,672,984	80%	37,384
555	Former Vons Grocery Store	Vacant	0.00	0	0	0%	0
565	Security Pacific	Services	0.00	0	0	0%	0
585	The Olive Garden	Restaurant with Liquor	217.20	12,000	3,021,236	100%	30,212

Proposed Expanded Chula Vista Shopping Center
Estimated City Sales Tax Revenue Yield with New Department Store

Assumptions:

1991 Inflation Rate = 4.50%
Sales Coefficient = 8.22%
Growth Factor = 2.50%

All 555 Broadway, listed by suite #			1990 Median	Square	Estimated 1994 Annual Sales	Percent	Estimated
Suite #	Name of Business	Store Type	Sales per S.F.*	Feet	(in 1991 $)	Taxable	City Sales Tax
598	Allie's Restaurant	Restaurant	179.50	6,000	1,248,416	100%	12,484
599	Burger King	Fast Food	264.82	3,600	1,105,088	100%	11,051
1000	Shades of California	Specialty	190.76	205	45,330	100%	453
1001	J. Burton Jewelers	Jewelry	452.33	1,197	627,615	100%	6,276
1002	T-Shirt Plus	Special Apparel/Unisex	226.18	1,017	266,636	100%	2,666
1006	Little Kid's Wear	Children's Apparel	187.73	1,563	340,123	100%	3,401
1008	Coach House Gift	Cards & Gifts	147.16	3,245	553,539	100%	5,535
1012	Florici Fashions	Ladies' Apparel	150.47	1,393	242,965	100%	2,430
1016	Furniture Profiles	Home Furnishings	206.86	6,929	1,661,463	100%	16,615
1018	Pleasant House of Nat. Foods	Health Food	181.07	2,014	422,717	100%	4,227
1019	Mgmt. and Leasing Office	Services	0.00	0	0	0%	0
1020	Home Delights	Home Accessories	174.34	1,149	232,199	100%	2,322
1022	Swimwear Boutique	Ladies' Specialties	174.51	493	99,727	100%	997
1024	Claire's Boutique	Ladies' Specialties	174.51	1,232	249,215	100%	2,492
1026	Lane Bryant	Ladies' Specialties	174.51	5,510	1,114,591	100%	11,146
1030	Gabriel's	Ladies' Apparel	150.47	2,037	355,291	100%	3,553
1032	Merksamer Jeweler	Jewelry	452.33	1,200	629,188	100%	6,292
1034	Charlotte Russe	Ladies' Apparel	150.47	8,217	1,433,200	100%	14,332
1036	Wet Seal	Ladies' Apparel	150.47	3,725	649,710	100%	6,497
1038	Gordon's Jewelers	Jewelry	452.33	1,000	524,323	100%	5,243
1040	Jay Jacobs	Men's & Women's Apparel	177.99	4,178	862,001	100%	8,620
1044	Chess King	Men's Apparel	190.27	2,160	476,395	100%	4,764
1050	Pro Image	Specialty	226.18	1,159	303,865	100%	3,039
1056	Haircut Company	Unisex Hair	186.67	1,292	279,564	0%	0
1060	Diamond Designs	Jewelry	452.33	2,148	1,126,246	100%	11,262
1066	Uforia	Cards & Gifts	147.16	1,159	197,705	100%	1,977
1068	Wilson's Suede and Leather	Leather Shop	313.75	1,852	673,548	100%	6,735
1070	Sam Goody's MusicLand	Records & Tapes	246.89	2,228	637,620	100%	6,376
1076	Pearle Vision Express	Eyeglasses - Optician	242.19	3,148	883,760	100%	8,838
1078	Oro Maya Jewelers	Jewelry	452.33	780	408,972	100%	4,090
1080	Vacant		0.00	778	0		0
1082	Weisfield's Jewelry	Jewelry	452.33	1,327	695,777	100%	6,958

Proposed Expanded Chula Vista Shopping Center
Estimated City Sales Tax Revenue Yield with New Department Store

Assumptions:

1991 Inflation Rate = 4.50%
Sales Coefficient = 8.22%
Growth Factor = 2.50%

All 555 Broadway, listed by suite #

Suite #	Name of Business	Store Type	1990 Median Sales per S.F.*	Square Feet	Estimated 1994 Annual Sales (in 1991 $)	Percent Taxable	Estimated City Sales Tax
1084	Lady Footlocker	Athletic Footwear	285.56	1,495	494,860	100%	4,949
1086	5*7*9	Ladies' Specialties	174.51	1,370	277,131	100%	2,771
1088	Fan Club	Athletic Footwear	285.56	2,257	747,089	100%	7,471
1090	JW	Men's Apparel	190.27	1,163	256,504	100%	2,565
1092	Compagnie Intern'l Express	Ladies' Apparel	150.47	5,704	994,885	100%	9,949
1096	Richard's Luggage	Luggage	205.67	2,498	595,534	100%	5,955
1098	Inner City	Men's Apparel	190.27	2,968	654,603	100%	6,546
1100	Zales	Jewelry	452.33	1,312	687,912	100%	6,879
2000	Califronia Yogurt Co.	Yogurt Shop	208.42	634	153,169	100%	1,532
2004	Great Amer. Cookie	Cookie Shop	246.49	709	202,577	100%	2,026
2010	KayBee Toys	Toys	187.02	3,924	850,669	100%	8,507
2014	Tilt Game Room	Arcade, Amusement	113.37	2,153	282,934	100%	2,829
2016	The Wherehouse	Records & Tapes	246.89	6,263	1,792,377	100%	17,924
2018	L.A. Nails	Services	208.30	661	159,601	0%	0
2020	Sports Originals	Specialty	226.18	1,103	289,183	100%	2,892
2024	Kay Jewelers	Jewelry	452.33	1,113	583,572	100%	5,836
2028	Goody Goody Ice Cream	Ice Cream	251.29	739	215,260	100%	2,153
2029	Scripps Well Being	Services	0.00	1,815	0	0%	0
2030	HotDog on a Stick	Fast Food	264.82	896	275,044	100%	2,750
2034	Bocadillos Mex. Cafe	Fast Food	264.82	1,100	337,666	100%	3,377
2036	Chopstix Chinese Cafe	Fast Food	264.82	1,213	372,353	100%	3,724
2042	Sbarro Italian Eatery	Fast Food	264.82	1,156	354,856	100%	3,549
2044	OrangeJul/DQ/KarmelKorn	Fast Food	264.82	1,078	330,912	100%	3,309
	JC Penney	Department Store	134.37	86,729	13,508,595	100%	135,086
	Sears	Department Store	134.37	249,000	38,783,339	100%	387,833
	The Broadway	Department Store	134.37	150,000	23,363,457	100%	233,635
	Mervyn's	Department Store	134.37	81,600	12,709,721	100%	127,097
	Cinema	Cinema	57.19	36,000	2,386,526	25%	5,966
	Total			843,623	$144,233,854		$1,405,267

* from Urban Land Institute's Dollars & Cents of Shopping Centers, 1990, U.S. Regional Shopping Centers

Proposed Expanded Chula Vista Shopping Center
Estimated City Sales Tax Revenue Yield with New Department Store

Assumptions:

1991 Inflation Rate = 4.50%
Sales Coefficient = 8.22%
Growth Factor = 2.50%

Store Type	1990 Median Sales per S.F.*	Square Feet	Estimated 1994 Annual Sales (in 1991 $)	Percent Taxable	Estimated City Sales Tax
Arcade, Amusement	$113.37	2,153	$282,934	100%	$2,829
Athletic Footwear	285.56	6,252	2,069,474	100%	20,695
Books	200.10	8,747	2,028,961	100%	20,290
Candy & Nuts	270.74	1,285	403,178	100%	4,032
Cards & Gifts	147.16	13,634	2,325,754	100%	23,258
Children's Apparel	187.73	4,734	1,030,162	100%	10,302
Cinema	57.19	36,000	2,386,526	25%	5,966
Cookie Shop	246.49	709	202,577	100%	2,026
Department Store	134.37	485,729	75,655,392	100%	756,554
Drug Store	172.28	23,400	4,672,984	80%	37,384
Eyeglasses - Optician	242.19	3,148	883,760	100%	8,838
Fabric Shop	96.73	7,739	867,740	100%	8,677
Family Shoes	141.58	19,966	3,276,697	100%	32,767
Fast Food	264.82	9,043	2,775,919	100%	27,759
Health Food	181.07	2,014	422,717	100%	4,227
Home Accessories	174.34	1,149	232,199	100%	2,322
Home Furnishings	206.86	6,929	1,661,463	100%	16,615
Ice Cream	251.29	739	215,260	100%	2,153
Jewelry	452.33	10,931	5,731,375	100%	57,314
Ladies' Apparel	150.47	66,258	11,556,677	100%	115,567
Ladies' Shoes	203.01	8,180	1,924,927	100%	19,249
Ladies' Specialties	174.51	14,114	2,855,077	100%	28,551
Leather Shop	313.75	1,852	673,548	100%	6,735
Luggage	205.67	2,498	595,534	100%	5,955
Men's & Women's Apparel	177.99	4,178	862,001	100%	8,620
Men's Apparel	190.27	16,154	3,562,917	100%	35,629
Men's Shoes	257.42	6,000	1,790,346	100%	17,903
Records & Tapes	246.89	8,491	2,429,998	100%	24,300
Restaurant	179.50	6,000	1,248,416	100%	12,484
Restaurant with Liquor	217.20	12,000	3,021,236	100%	30,212
Services		16,706	0	100%	0
Special Apparel/Unisex	226.18	3,430	899,211	100%	8,992

Proposed Expanded Chula Vista Shopping Center
Estimated City Sales Tax Revenue Yield with New Department Store

Assumptions:

1991 Inflation Rate = 4.50%
Sales Coefficient = 8.22%
Growth Factor = 2.50%

Store Type	1990 Median Sales per S.F.*	Square Feet	Estimated 1994 Annual Sales (in 1991 $)	Percent Taxable	Estimated City Sales Tax
Specialty	190.76	2,467	545,507	100%	5,455
Toys	187.02	10,020	2,172,129	100%	21,721
Unisex Hair	186.67	1,292	279,564	0%	0
Unisex/Jean Shop	181.70	9,600	2,021,947	100%	20,219
Yogurt Shop	208.42	634	153,169	100%	1,532
Costume Jewelry	262.60	1,514	460,980	100%	4,610
Radio, video, stereo	246.58	3,853	1,101,287	100%	11,013
Total		839,543	$145,279,540		$1,422,755

* from Urban Land Institute's Dollars & Cents of Shopping Centers, 1990, U.S. Regional Shopping Centers

Proposed Expanded Chula Vista Shopping Center
Estimated City Sales Tax Revenue Yield with New Department Store

Assumptions:

1991 Inflation Rate = 4.50%
Sales Coefficient = 8.22%
Growth Factor = 5.00%

All 555 Broadway, listed by suite #

Suite #	Name of Business	Store Type	1990 Median Sales per S.F.*	Square Feet	Estimated 1994 Annual Sales (in 1991 $)	Percent Taxable	Estimated City Sales Tax
100	Streicher's Shoes	Men's Shoes	$257.42	4,800	$1,467,211	100%	$14,672
102	Raya's Store For Men	Men's Apparel	190.27	3,600	813,358	100%	8,134
104	Leeds Shoes	Ladies' Shoes	203.01	3,600	867,818	100%	8,678
106	Oak Tree	Men's Apparel	190.27	2,802	633,064	100%	6,331
108	Little Folks	Children's Clothes	187.73	3,171	706,869	100%	7,069
112	Guadalajara Jewelers	Jewelry	452.33	854	458,693	100%	4,587
114	Rave	Ladies' Apparel	150.47	3,021	539,771	100%	5,398
116	Miller's Outpost	Unisex/Jean Shop	181.70	9,600	2,071,262	100%	20,713
120	Payless Shoe Source	Ladies' Shoes	203.01	3,500	843,712	100%	8,437
122	Bigger 'n Better	Ladies' Specialties	174.51	4,000	828,875	100%	8,289
124	Hardy Shoes	Men's Shoes	257.42	1,200	366,803	100%	3,668
126	See's Candies	Candy & Nuts	270.74	1,244	399,928	100%	3,999
128	Kinney Shoes	Family Shoes	141.58	3,000	504,350	100%	5,044
130	Footlocker	Athletic Footwear	285.56	2,500	847,708	100%	8,477
132	Dr. Suder, Optometrist	Services	341.00	2,750	1,113,515	50%	5,568
134	Lerner	Ladies' Apparel	150.47	7,250	1,295,379	100%	12,954
136	Wild Pair	Ladies' Shoes	203.01	1,080	260,346	100%	2,603
138	Farr's Hallmark	Cards & Gifts	147.16	7,212	1,260,243	100%	12,602
140	Yardage City	Fabric Shop	96.73	7,739	888,904	100%	8,889
142	Waldenbooks	Books	200.10	3,232	767,940	100%	7,679
144	Coleman College	Services	0.00	11,480	0	0%	0
521	Durbin's Coin Laundry	Services	0.00	0	0	0%	0
523	Half Hour Perma Clean	Services	0.00	0	0	0%	0
527	Hank and Paul's Barber Shop	Services	142.21	0	0	0%	0
	Vacant	Vacant		0	0	0%	0
	Vacant	Vacant		0	0	0%	0
531	Winchell's Donuts	Doughnut/Muffin Shop	186.73	0	0	100%	0
535	The D's Hydrocal Shop	Arts & Crafts	101.91	0	0	100%	0
541	Savon Drugs	Drug Store	172.28	23,400	4,786,959	80%	38,296
555	Former Vons Grocery Store	Vacant	0.00	0	0	0%	0
565	Security Pacific	Services	0.00	0	0	0%	0
585	The Olive Garden	Restaurant with Liquor	217.20	12,000	3,094,924	100%	30,949

Proposed Expanded Chula Vista Shopping Center
Estimated City Sales Tax Revenue Yield with New Department Store

Assumptions:

1991 Inflation Rate = 4.50%
Sales Coefficient = 8.22%
Growth Factor = 5.00%

All 555 Broadway, listed by suite # Suite #	Name of Business	Store Type	1990 Median Sales per S.F.*	Square Feet	Estimated 1994 Annual Sales (in 1991 $)	Percent Taxable	Estimated City Sales Tax
598	Allie's Restaurant	Restaurant	179.50	6,000	1,278,865	100%	12,789
599	Burger King	Fast Food	264.82	3,600	1,132,041	100%	11,320
1000	Shades of California	Specialty	190.76	205	46,436	100%	464
1001	J. Burton Jewelers	Jewelry	452.33	1,197	642,922	100%	6,429
1002	T-Shirt Plus	Special Apparel/Unisex	226.18	1,017	273,139	100%	2,731
1006	Little Kid's Wear	Children's Apparel	187.73	1,563	348,419	100%	3,484
1008	Coach House Gift	Cards & Gifts	147.16	3,245	567,040	100%	5,670
1012	Fiorici Fashions	Ladies' Apparel	150.47	1,393	248,891	100%	2,489
1016	Furniture Profiles	Home Furnishings	206.86	6,929	1,701,986	100%	17,020
1018	Pleasant House of Nat. Foods	Health Food	181.07	2,014	433,027	100%	4,330
1019	Mgmt. and Leasing Office	Services	0.00	0	0	0%	0
1020	Home Delights	Home Accessories	174.34	1,149	237,863	100%	2,379
1022	Swimwear Boutique	Ladies' Specialties	174.51	493	102,159	100%	1,022
1024	Claire's Boutique	Ladies' Specialties	174.51	1,232	255,294	100%	2,553
1026	Lane Bryant	Ladies' Specialties	174.51	5,510	1,141,776	100%	11,418
1030	Gabriel's	Ladies' Apparel	150.47	2,037	363,957	100%	3,640
1032	Merksamer Jeweler	Jewelry	452.33	1,200	644,534	100%	6,445
1034	Charlotte Russe	Ladies' Apparel	150.47	8,217	1,468,156	100%	14,682
1036	Wet Seal	Ladies' Apparel	150.47	3,725	665,557	100%	6,656
1038	Gordon's Jewelers	Jewelry	452.33	1,000	537,111	100%	5,371
1040	Jay Jacobs	Men's & Women's Apparel	177.99	4,178	883,025	100%	8,830
1044	Chess King	Men's Apparel	190.27	2,160	488,015	100%	4,880
1050	Pro Image	Specialty	226.18	1,159	311,277	100%	3,113
1056	Haircut Company	Unisex Hair	186.67	1,292	286,382	0%	0
1060	Diamond Designs	Jewelry	452.33	2,148	1,153,715	100%	11,537
1066	Uforia	Cards & Gifts	147.16	1,159	202,527	100%	2,025
1068	Wilson's Suede and Leather	Leather Shop	313.75	1,852	689,976	100%	6,900
1070	Sam Goody's MusicLand	Records & Tapes	246.89	2,228	653,172	100%	6,532
1076	Pearle Vision Express	Eyeglasses - Optician	242.19	3,148	905,315	100%	9,053
1078	Oro Maya Jewelers	Jewelry	452.33	780	418,947	100%	4,189
1080	Vacant		0.00	778	0		0
1082	Weisfield's Jewelry	Jewelry	452.33	1,327	712,747	100%	7,127

Proposed Expanded Chula Vista Shopping Center
Estimated City Sales Tax Revenue Yield with New Department Store

Assumptions:

1991 Inflation Rate = 4.50%
Sales Coefficient = 8.22%
Growth Factor = 5.00%

All 555 Broadway, listed by suite #					Estimated 1994		
Suite #	Name of Business	Store Type	1990 Median Sales per S.F.*	Square Feet	Annual Sales (in 1991 $)	Percent Taxable	Estimated City Sales Tax
1084	Lady Footlocker	Athletic Footwear	285.56	1,495	506,929	100%	5,069
1086	5*7*9	Ladies' Specialties	174.51	1,370	283,890	100%	2,839
1088	Fan Club	Athletic Footwear	285.56	2,257	765,311	100%	7,653
1090	JW	Men's Apparel	190.27	1,163	262,760	100%	2,628
1092	Compagnie Intern'l Express	Ladies' Apparel	150.47	5,704	1,019,151	100%	10,192
1096	Richard's Luggage	Luggage	205.67	2,498	610,060	100%	6,101
1098	Inner City	Men's Apparel	190.27	2,968	670,569	100%	6,706
1100	Zales	Jewelry	452.33	1,312	704,690	100%	7,047
2000	Califronia Yogurt Co.	Yogurt Shop	208.42	634	156,905	100%	1,569
2004	Great Amer. Cookie	Cookie Shop	246.49	709	207,517	100%	2,075
2010	KayBee Toys	Toys	187.02	3,924	871,417	100%	8,714
2014	Tilt Game Room	Arcade, Amusement	113.37	2,153	289,835	100%	2,898
2016	The Wherehouse	Records & Tapes	246.89	6,263	1,836,094	100%	18,361
2018	L.A. Nails	Services	208.30	661	163,493	0%	0
2020	Sports Originals	Specialty	226.18	1,103	296,237	100%	2,962
2024	Kay Jewelers	Jewelry	452.33	1,113	597,805	100%	5,978
2028	Goody Goody Ice Cream	Ice Cream	251.29	739	220,510	100%	2,205
2029	Scripps Well Being	Services	0.00	1,815	0	0%	0
2030	HotDog on a Stick	Fast Food	264.82	896	281,752	100%	2,818
2034	Bocadillos Mex. Cafe	Fast Food	264.82	1,100	345,901	100%	3,459
2036	Chopstix Chinese Cafe	Fast Food	264.82	1,213	381,435	100%	3,814
2042	Sbarro Italian Eatery	Fast Food	264.82	1,156	363,511	100%	3,635
2044	OrangeJul/DQ/KarmelKorn	Fast Food	264.82	1,078	338,983	100%	3,390
	JC Penney	Department Store	134.37	86,729	13,838,073	100%	138,381
	Sears	Department Store	134.37	249,000	39,729,274	100%	397,293
	The Broadway	Department Store	134.37	150,000	23,933,298	100%	239,333
	Mervyn's	Department Store	134.37	81,600	13,019,714	100%	130,197
	Cinema	Cinema	57.19	36,000	2,444,734	25%	6,112
	Total			843,623	$147,751,753		$1,439,542

* from Urban Land Institute's Dollars & Cents of Shopping Centers, 1990, U.S. Regional Shopping Centers

Proposed Expanded Chula Vista Shopping Center
Estimated City Sales Tax Revenue Yield with New Department Store

Assumptions:

1991 Inflation Rate = 4.50%
Sales Coefficient = 8.22%
Growth Factor = 7.50%

All 555 Broadway, listed by suite #

Suite #	Name of Business	Store Type	1990 Median Sales per S.F.*	Square Feet	Estimated 1994 Annual Sales (in 1991 $)	Percent Taxable	Estimated City Sales Tax
100	Streicher's Shoes	Men's Shoes	$257.42	4,800	$1,502,144	100%	$15,021
102	Raya's Store For Men	Men's Apparel	190.27	3,600	832,724	100%	8,327
104	Leeds Shoes	Ladies' Shoes	203.01	3,600	888,481	100%	8,885
106	Oak Tree	Men's Apparel	190.27	2,802	648,137	100%	6,481
108	Little Folks	Children's Clothes	187.73	3,171	723,699	100%	7,237
112	Guadalajara Jewelers	Jewelry	452.33	854	469,614	100%	4,696
114	Rave	Ladies' Apparel	150.47	3,021	552,623	100%	5,526
116	Miller's Outpost	Unisex/Jean Shop	181.70	9,600	2,120,578	100%	21,206
120	Payless Shoe Source	Ladies' Shoes	203.01	3,500	863,801	100%	8,638
122	Bigger 'n Better	Ladies' Specialties	174.51	4,000	848,611	100%	8,486
124	Hardy Shoes	Men's Shoes	257.42	1,200	375,536	100%	3,755
126	See's Candies	Candy & Nuts	270.74	1,244	409,450	100%	4,095
128	Kinney Shoes	Family Shoes	141.58	3,000	516,358	100%	5,164
130	Footlocker	Athletic Footwear	285.56	2,500	867,892	100%	8,679
132	Dr. Suder, Optometrist	Services	341.00	2,750	1,140,027	50%	5,700
134	Lerner	Ladies' Apparel	150.47	7,250	1,326,221	100%	13,262
136	Wild Pair	Ladies' Shoes	203.01	1,080	266,544	100%	2,665
138	Farr's Hallmark	Cards & Gifts	147.16	7,212	1,290,249	100%	12,902
140	Yardage City	Fabric Shop	96.73	7,739	910,069	100%	9,101
142	Waldenbooks	Books	200.10	3,232	786,225	100%	7,862
144	Coleman College	Services	0.00	11,480	0	0%	0
521	Durbin's Coin Laundry	Services	0.00	0	0	0%	0
523	Half Hour Perma Clean	Services	0.00	0	0	0%	0
527	Hank and Paul's Barber Shop	Services	142.21	0	0	0%	0
	Vacant	Vacant		0	0	0%	0
	Vacant	Vacant		0	0	0%	0
531	Winchell's Donuts	Doughnut/Muffin Shop	186.73	0	0	100%	0
535	The D's Hydrocal Shop	Arts & Crafts	101.91	0	0	100%	0
541	Savon Drugs	Drug Store	172.28	23,400	4,900,934	80%	39,207
555	Former Vons Grocery Store	Vacant	0.00	0	0	0%	0
565	Security Pacific	Services	0.00	0	0	0%	0
585	The Olive Garden	Restaurant with Liquor	217.20	12,000	3,168,613	100%	31,686

Proposed Expanded Chula Vista Shopping Center
Estimated City Sales Tax Revenue Yield with New Department Store

Assumptions:

1991 Inflation Rate = 4.50%
Sales Coefficient = 8.22%
Growth Factor = 7.50%

All 555 Broadway, listed by suite #

Suite #	Name of Business	Store Type	1990 Median Sales per S.F.*	Square Feet	Estimated 1994 Annual Sales (in 1991 $)	Percent Taxable	Estimated City Sales Tax
598	Allie's Restaurant	Restaurant	179.50	6,000	1,309,314	100%	13,093
599	Burger King	Fast Food	264.82	3,600	1,158,995	100%	11,590
1000	Shades of California	Specialty	190.76	205	47,541	100%	475
1001	J. Burton Jewelers	Jewelry	452.33	1,197	658,230	100%	6,582
1002	T-Shirt Plus	Special Apparel/Unisex	226.18	1,017	279,643	100%	2,796
1006	Little Kid's Wear	Children's Apparel	187.73	1,563	356,715	100%	3,567
1008	Coach House Gift	Cards & Gifts	147.16	3,245	580,541	100%	5,805
1012	Fiorici Fashions	Ladies' Apparel	150.47	1,393	254,817	100%	2,548
1016	Furniture Profiles	Home Furnishings	206.86	6,929	1,742,510	100%	17,425
1018	Pleasant House of Nat. Foods	Health Food	181.07	2,014	443,337	100%	4,433
1019	Mgmt. and Leasing Office	Services	0.00	0	0	0%	0
1020	Home Delights	Home Accessories	174.34	1,149	243,526	100%	2,435
1022	Swimwear Boutique	Ladies' Specialties	174.51	493	104,591	100%	1,046
1024	Claire's Boutique	Ladies' Specialties	174.51	1,232	261,372	100%	2,614
1026	Lane Bryant	Ladies' Specialties	174.51	5,510	1,168,961	100%	11,690
1030	Gabriel's	Ladies' Apparel	150.47	2,037	372,623	100%	3,726
1032	Merksamer Jeweler	Jewelry	452.33	1,200	659,880	100%	6,599
1034	Charlotte Russe	Ladies' Apparel	150.47	8,217	1,503,112	100%	15,031
1036	Wet Seal	Ladies' Apparel	150.47	3,725	681,403	100%	6,814
1038	Gordon's Jewelers	Jewelry	452.33	1,000	549,900	100%	5,499
1040	Jay Jacobs	Men's & Women's Apparel	177.99	4,178	904,049	100%	9,040
1044	Chess King	Men's Apparel	190.27	2,160	499,634	100%	4,996
1050	Pro Image	Specialty	226.18	1,159	318,688	100%	3,187
1056	Haircut Company	Unisex Hair	186.67	1,292	293,201	0%	0
1060	Diamond Designs	Jewelry	452.33	2,148	1,181,185	100%	11,812
1066	Uforia	Cards & Gifts	147.16	1,159	207,349	100%	2,073
1068	Wilson's Suede and Leather	Leather Shop	313.75	1,852	706,404	100%	7,064
1070	Sam Goody's MusicLand	Records & Tapes	246.89	2,228	668,724	100%	6,687
1076	Pearle Vision Express	Eyeglasses - Optician	242.19	3,148	926,871	100%	9,269
1078	Oro Maya Jewelers	Jewelry	452.33	780	428,922	100%	4,289
1080	Vacant		0.00	778	0		0
1082	Weisfield's Jewelry	Jewelry	452.33	1,327	729,717	100%	7,297

Proposed Expanded Chula Vista Shopping Center
Estimated City Sales Tax Revenue Yield with New Department Store

Assumptions:

1991 Inflation Rate = 4.50%
Sales Coefficient = 8.22%
Growth Factor = 7.50%

All 555 Broadway, listed by suite #

Suite #	Name of Business	Store Type	1990 Median Sales per S.F.*	Square Feet	Estimated 1994 Annual Sales (in 1991 $)	Percent Taxable	Estimated City Sales Tax
1084	Lady Footlocker	Athletic Footwear	285.56	1,495	518,999	100%	5,190
1086	5*7*9	Ladies' Specialties	174.51	1,370	290,649	100%	2,906
1088	Fan Club	Athletic Footwear	285.56	2,257	783,533	100%	7,835
1090	JW	Men's Apparel	190.27	1,163	269,016	100%	2,690
1092	Compagnie Intern'l Express	Ladies' Apparel	150.47	5,704	1,043,416	100%	10,434
1096	Richard's Luggage	Luggage	205.67	2,498	624,585	100%	6,246
1098	Inner City	Men's Apparel	190.27	2,968	686,534	100%	6,865
1100	Zales	Jewelry	452.33	1,312	721,468	100%	7,215
2000	Califronia Yogurt Co.	Yogurt Shop	208.42	634	160,641	100%	1,606
2004	Great Amer. Cookie	Cookie Shop	246.49	709	212,458	100%	2,125
2010	KayBee Toys	Toys	187.02	3,924	892,165	100%	8,922
2014	Tilt Game Room	Arcade, Amusement	113.37	2,153	296,736	100%	2,967
2016	The Wherehouse	Records & Tapes	246.89	6,263	1,879,810	100%	18,798
2018	L.A. Nails	Services	208.30	661	167,386	0%	0
2020	Sports Originals	Specialty	226.18	1,103	303,290	100%	3,033
2024	Kay Jewelers	Jewelry	452.33	1,113	612,038	100%	6,120
2028	Goody Goody Ice Cream	Ice Cream	251.29	739	225,760	100%	2,258
2029	Scripps Well Being	Services	0.00	1,815	0	0%	0
2030	HotDog on a Stick	Fast Food	264.82	896	288,461	100%	2,885
2034	Bocadillos Mex. Cafe	Fast Food	264.82	1,100	354,137	100%	3,541
2036	Chopstix Chinese Cafe	Fast Food	264.82	1,213	390,517	100%	3,905
2042	Sbarro Italian Eatery	Fast Food	264.82	1,156	372,166	100%	3,722
2044	OrangeJul/DQ/KarmelKorn	Fast Food	264.82	1,078	347,054	100%	3,471
	JC Penney	Department Store	134.37	86,729	14,167,551	100%	141,676
	Sears	Department Store	134.37	249,000	40,675,209	100%	406,752
	The Broadway	Department Store	134.37	150,000	24,503,138	100%	245,031
	Mervyn's	Department Store	134.37	81,600	13,329,707	100%	133,297
	Cinema	Cinema	57.19	36,000	2,502,942	25%	6,257
	Total			843,623	$151,269,652		$1,473,817

* from Urban Land Institute's Dollars & Cents of Shopping Centers, 1990, U.S. Regional Shopping Centers

Proposed Expanded Chula Vista Shopping Center
Estimated City Sales Tax Revenue Yield with New Department Store

Assumptions:

1991 Inflation Rate = 4.50%
Sales Coefficient = 8.22%
Growth Factor = 10.00%

All 555 Broadway, listed by suite #

Suite #	Name of Business	Store Type	1990 Median Sales per S.F.*	Square Feet	Estimated 1994 Annual Sales (in 1991 $)	Percent Taxable	Estimated City Sales Tax
100	Streicher's Shoes	Men's Shoes	$257.42	4,800	$1,537,078	100%	$15,371
102	Raya's Store For Men	Men's Apparel	190.27	3,600	852,089	100%	8,521
104	Leeds Shoes	Ladies' Shoes	203.01	3,600	909,143	100%	9,091
106	Oak Tree	Men's Apparel	190.27	2,802	663,210	100%	6,632
108	Little Folks	Children's Clothes	187.73	3,171	740,529	100%	7,405
112	Guadalajara Jewelers	Jewelry	452.33	854	480,536	100%	4,805
114	Rave	Ladies' Apparel	150.47	3,021	565,474	100%	5,655
116	Miller's Outpost	Unisex/Jean Shop	181.70	9,600	2,169,894	100%	21,699
120	Payless Shoe Source	Ladies' Shoes	203.01	3,500	883,889	100%	8,839
122	Bigger 'n Better	Ladies' Specialties	174.51	4,000	868,346	100%	8,683
124	Hardy Shoes	Men's Shoes	257.42	1,200	384,269	100%	3,843
126	See's Candies	Candy & Nuts	270.74	1,244	418,972	100%	4,190
128	Kinney Shoes	Family Shoes	141.58	3,000	528,367	100%	5,284
130	Footlocker	Athletic Footwear	285.56	2,500	888,075	100%	8,881
132	Dr. Suder, Optometrist	Services	341.00	2,750	1,166,539	50%	5,833
134	Lerner	Ladies' Apparel	150.47	7,250	1,357,064	100%	13,571
136	Wild Pair	Ladies' Shoes	203.01	1,080	272,743	100%	2,727
138	Farr's Hallmark	Cards & Gifts	147.16	7,212	1,320,255	100%	13,203
140	Yardage City	Fabric Shop	96.73	7,739	931,233	100%	9,312
142	Waldenbooks	Books	200.10	3,232	804,509	100%	8,045
144	Coleman College	Services	0.00	11,480	0	0%	0
521	Durbin's Coin Laundry	Services	0.00	0	0	0%	0
523	Half Hour Perma Clean	Services	0.00	0	0	0%	0
527	Hank and Paul's Barber Shop	Services	142.21	0	0	0%	0
	Vacant	Vacant		0	0	0%	0
	Vacant	Vacant		0	0	0%	0
531	Winchell's Donuts	Doughnut/Muffin Shop	186.73	0	0	100%	0
535	The D's Hydrocal Shop	Arts & Crafts	101.91	0	0	100%	0
541	Savon Drugs	Drug Store	172.28	23,400	5,014,909	80%	40,119
555	Former Vons Grocery Store	Vacant	0.00	0	0	0%	0
565	Security Pacific	Services	0.00	0	0	0%	0
585	The Olive Garden	Restaurant with Liquor	217.20	12,000	3,242,302	100%	32,423

Proposed Expanded Chula Vista Shopping Center
Estimated City Sales Tax Revenue Yield with New Department Store

Assumptions:

1991 Inflation Rate = 4.50%
Sales Coefficient = 8.22%
Growth Factor = 10.00%

All 555 Broadway, listed by suite #

Suite #	Name of Business	Store Type	1990 Median Sales per S.F.*	Square Feet	Estimated 1994 Annual Sales (in 1991 $)	Percent Taxable	Estimated City Sales Tax
598	Allie's Restaurant	Restaurant	179.50	6,000	1,339,763	100%	13,398
599	Burger King	Fast Food	264.82	3,600	1,185,948	100%	11,859
1000	Shades of California	Specialty	190.76	205	48,647	100%	486
1001	J. Burton Jewelers	Jewelry	452.33	1,197	673,538	100%	6,735
1002	T-Shirt Plus	Special Apparel/Unisex	226.18	1,017	286,146	100%	2,861
1006	Little Kid's Wear	Children's Apparel	187.73	1,563	365,010	100%	3,650
1008	Coach House Gift	Cards & Gifts	147.16	3,245	594,042	100%	5,940
1012	Florici Fashions	Ladies' Apparel	150.47	1,393	260,743	100%	2,607
1016	Furniture Profiles	Home Furnishings	206.86	6,929	1,783,033	100%	17,830
1018	Pleasant House of Nat. Foods	Health Food	181.07	2,014	453,647	100%	4,536
1019	Mgmt. and Leasing Office	Services	0.00	0	0	0%	0
1020	Home Delights	Home Accessories	174.34	1,149	249,189	100%	2,492
1022	Swimwear Boutique	Ladies' Specialties	174.51	493	107,024	100%	1,070
1024	Claire's Boutique	Ladies' Specialties	174.51	1,232	267,450	100%	2,675
1026	Lane Bryant	Ladies' Specialties	174.51	5,510	1,196,146	100%	11,961
1030	Gabriel's	Ladies' Apparel	150.47	2,037	381,288	100%	3,813
1032	Merksamer Jeweler	Jewelry	452.33	1,200	675,226	100%	6,752
1034	Charlotte Russe	Ladies' Apparel	150.47	8,217	1,538,068	100%	15,381
1036	Wet Seal	Ladies' Apparel	150.47	3,725	697,250	100%	6,973
1038	Gordon's Jewelers	Jewelry	452.33	1,000	562,688	100%	5,627
1040	Jay Jacobs	Men's & Women's Apparel	177.99	4,178	925,074	100%	9,251
1044	Chess King	Men's Apparel	190.27	2,160	511,254	100%	5,113
1050	Pro Image	Specialty	226.18	1,159	326,099	100%	3,261
1056	Haircut Company	Unisex Hair	186.67	1,292	300,019	0%	0
1060	Diamond Designs	Jewelry	452.33	2,148	1,208,654	100%	12,087
1066	Uforia	Cards & Gifts	147.16	1,159	212,171	100%	2,122
1068	Wilson's Suede and Leather	Leather Shop	313.75	1,852	722,832	100%	7,228
1070	Sam Goody's MusicLand	Records & Tapes	246.89	2,228	684,276	100%	6,843
1076	Pearle Vision Express	Eyeglasses - Optician	242.19	3,148	948,426	100%	9,484
1078	Oro Maya Jewelers	Jewelry	452.33	780	438,897	100%	4,389
1080	Vacant		0.00	778	0		0
1082	Weisfield's Jewelry	Jewelry	452.33	1,327	746,687	100%	7,467

Proposed Expanded Chula Vista Shopping Center
Estimated City Sales Tax Revenue Yield with New Department Store

Assumptions:

1991 Inflation Rate = 4.50%
Sales Coefficient = 8.22%
Growth Factor = 10.00%

All 555 Broadway, listed by suite #

Suite #	Name of Business	Store Type	1990 Median Sales per S.F.*	Square Feet	Estimated 1994 Annual Sales (in 1991 $)	Percent Taxable	Estimated City Sales Tax
1084	Lady Footlocker	Athletic Footwear	285.56	1,495	531,069	100%	5,311
1086	5*7*9	Ladies' Specialties	174.51	1,370	297,408	100%	2,974
1088	Fan Club	Athletic Footwear	285.56	2,257	801,754	100%	8,018
1090	JW	Men's Apparel	190.27	1,163	275,272	100%	2,753
1092	Compagnie Intern'l Express	Ladies' Apparel	150.47	5,704	1,067,682	100%	10,677
1096	Richard's Luggage	Luggage	205.67	2,498	639,110	100%	6,391
1098	Inner City	Men's Apparel	190.27	2,968	702,500	100%	7,025
1100	Zales	Jewelry	452.33	1,312	738,247	100%	7,382
2000	Califronia Yogurt Co.	Yogurt Shop	208.42	634	164,377	100%	1,644
2004	Great Amer. Cookie	Cookie Shop	246.49	709	217,399	100%	2,174
2010	KayBee Toys	Toys	187.02	3,924	912,913	100%	9,129
2014	Tilt Game Room	Arcade, Amusement	113.37	2,153	303,637	100%	3,036
2016	The Wherehouse	Records & Tapes	246.89	6,263	1,923,527	100%	19,235
2018	L.A. Nails	Services	208.30	661	171,279	0%	0
2020	Sports Originals	Specialty	226.18	1,103	310,343	100%	3,103
2024	Kay Jewelers	Jewelry	452.33	1,113	626,272	100%	6,263
2028	Goody Goody Ice Cream	Ice Cream	251.29	739	231,011	100%	2,310
2029	Scripps Well Being	Services	0.00	1,815	0	0%	0
2030	HotDog on a Stick	Fast Food	264.82	896	295,169	100%	2,952
2034	Bocadillos Mex. Cafe	Fast Food	264.82	1,100	362,373	100%	3,624
2036	Chopstix Chinese Cafe	Fast Food	264.82	1,213	399,599	100%	3,996
2042	Sbarro Italian Eatery	Fast Food	264.82	1,156	380,821	100%	3,808
2044	OrangeJul/DQ/KarmelKorn	Fast Food	264.82	1,078	355,126	100%	3,551
	JC Penney	Department Store	134.37	86,729	14,497,029	100%	144,970
	Sears	Department Store	134.37	249,000	41,621,144	100%	416,211
	The Broadway	Department Store	134.37	150,000	25,072,979	100%	250,730
	Mervyn's	Department Store	134.37	81,600	13,639,700	100%	136,397
	Cinema	Cinema	57.19	36,000	2,561,150	25%	6,403
	Total			843,623	$154,787,551		$1,508,091

* from Urban Land Institute's Dollars & Cents of Shopping Centers, 1990, U.S. Regional Shopping Centers

Proposed Expanded Chula Vista Shopping Center
Estimated City Sales Tax Revenue Yield without New Department Store

Assumptions:

1991 Inflation Rate = 4.50%
Sales Coefficient = 8.22%
Growth Factor = 0.00%

Store Type	1990 Median Sales per S.F.*	Square Feet	Estimated 1994 Annual Sales (in 1991 $)	Percent Taxable	Estimated City Sales Tax
Arcade, Amusement	$113.37	2,153	$276,034	100%	$2,760
Athletic Footwear	285.56	6,252	2,018,999	100%	20,190
Books	200.10	8,747	1,979,474	100%	19,795
Candy & Nuts	270.74	1,285	393,344	100%	3,933
Cards & Gifts	147.16	13,634	2,269,029	100%	22,690
Children's Apparel	187.73	4,734	1,005,036	100%	10,050
Cinema	57.19	36,000	2,328,318	25%	5,821
Cookie Shop	246.49	709	197,636	100%	1,976
Department Store	134.37	485,729	73,810,138	100%	738,101
Drug Store	172.28	23,400	4,559,008	80%	36,472
Eyeglasses - Optician	242.19	3,148	862,205	100%	8,622
Fabric Shop	96.73	7,739	846,576	100%	8,466
Family Shoes	141.58	19,966	3,196,778	100%	31,968
Fast Food	264.82	9,043	2,708,214	100%	27,082
Health Food	181.07	2,014	412,407	100%	4,124
Home Accessories	174.34	1,149	226,536	100%	2,265
Home Furnishings	206.86	6,929	1,620,939	100%	16,209
Ice Cream	251.29	739	210,010	100%	2,100
Jewelry	452.33	10,931	5,591,585	100%	55,916
Ladies' Apparel	150.47	66,258	11,274,806	100%	112,748
Ladies' Shoes	203.01	8,180	1,877,978	100%	18,780
Ladies' Specialties	174.51	14,114	2,785,441	100%	27,854
Leather Shop	313.75	1,852	657,120	100%	6,571
Luggage	205.67	2,498	581,009	100%	5,810
Men's & Women's Apparel	177.99	4,178	840,976	100%	8,410
Men's Apparel	190.27	16,154	3,476,016	100%	34,760
Men's Shoes	257.42	6,000	1,746,679	100%	17,467
Records & Tapes	246.89	8,491	2,370,730	100%	23,707
Restaurant	179.50	6,000	1,217,967	100%	12,180
Restaurant with Liquor	217.20	12,000	2,947,547	100%	29,475
Services		16,706	0	100%	0
Special Apparel/Unisex	226.18	3,430	877,279	100%	8,773

Proposed Expanded Chula Vista Shopping Center
Estimated City Sales Tax Revenue Yield without New Department Store

Assumptions:

1991 Inflation Rate = 4.50%
Sales Coefficient = 8.22%
Growth Factor = 0.00%

Store Type	1990 Median Sales per S.F.*	Square Feet	Estimated 1994 Annual Sales (in 1991 $)	Percent Taxable	Estimated City Sales Tax
Specialty	190.76	2,467	532,202	100%	5,322
Toys	187.02	10,020	2,119,151	100%	21,192
Unisex Hair	186.67	1,292	272,745	0%	0
Unisex/Jean Shop	181.70	9,600	1,972,631	100%	19,726
Yogurt Shop	208.42	634	149,434	100%	1,494
Costume Jewelry	262.60	1,514	449,737	100%	4,497
Radio, video, stereo	246.58	3,853	1,074,426	100%	10,744
Total		839,543	$141,736,137		$1,388,054

* from Urban Land Institute's Dollars & Cents of Shopping Centers, 1990, U.S. Regional Shopping Centers

Proposed Expanded Chula Vista Shopping Center
Estimated City Sales Tax Revenue Yield without New Department Store

Assumptions:

1991 Inflation Rate = 4.50%
Sales Coefficient = 8.22%
Growth Factor = 2.50%

Store Type	1990 Median Sales per S.F.*	Square Feet	Estimated 1994 Annual Sales (in 1991 $)	Percent Taxable	Estimated City Sales Tax
Arcade, Amusement	$113.37	2,153	$282,934	100%	$2,829
Athletic Footwear	285.56	6,252	2,069,474	100%	20,695
Books	200.10	8,747	2,028,961	100%	20,290
Candy & Nuts	270.74	1,285	403,178	100%	4,032
Cards & Gifts	147.16	13,634	2,325,754	100%	23,258
Children's Apparel	187.73	4,734	1,030,162	100%	10,302
Cinema	57.19	36,000	2,386,526	25%	5,966
Cookie Shop	246.49	709	202,577	100%	2,026
Department Store	134.37	485,729	75,655,392	100%	756,554
Drug Store	172.28	23,400	4,672,984	80%	37,384
Eyeglasses - Optician	242.19	3,148	883,760	100%	8,838
Fabric Shop	96.73	7,739	867,740	100%	8,677
Family Shoes	141.58	19,966	3,276,697	100%	32,767
Fast Food	264.82	9,043	2,775,919	100%	27,759
Health Food	181.07	2,014	422,717	100%	4,227
Home Accessories	174.34	1,149	232,199	100%	2,322
Home Furnishings	206.86	6,929	1,661,463	100%	16,615
Ice Cream	251.29	739	215,260	100%	2,153
Jewelry	452.33	10,931	5,731,375	100%	57,314
Ladies' Apparel	150.47	66,258	11,556,677	100%	115,567
Ladies' Shoes	203.01	8,180	1,924,927	100%	19,249
Ladies' Specialties	174.51	14,114	2,855,077	100%	28,551
Leather Shop	313.75	1,852	673,548	100%	6,735
Luggage	205.67	2,498	595,534	100%	5,955
Men's & Women's Apparel	177.99	4,178	862,001	100%	8,620
Men's Apparel	190.27	16,154	3,562,917	100%	35,629
Men's Shoes	257.42	6,000	1,790,346	100%	17,903
Records & Tapes	246.89	8,491	2,429,998	100%	24,300
Restaurant	179.50	6,000	1,248,416	100%	12,484
Restaurant with Liquor	217.20	12,000	3,021,236	100%	30,212
Services		16,706	0	100%	0
Special Apparel/Unisex	226.18	3,430	899,211	100%	8,992

Proposed Expanded Chula Vista Shopping Center
Estimated City Sales Tax Revenue Yield without New Department Store

Assumptions:

1991 Inflation Rate = 4.50%
Sales Coefficient = 8.22%
Growth Factor = 2.50%

Store Type	1990 Median Sales per S.F.*	Square Feet	Estimated 1994 Annual Sales (in 1991 $)	Percent Taxable	Estimated City Sales Tax
Specialty	190.76	2,467	545,507	100%	5,455
Toys	187.02	10,020	2,172,129	100%	21,721
Unisex Hair	186.67	1,292	279,564	0%	0
Unisex/Jean Shop	181.70	9,600	2,021,947	100%	20,219
Yogurt Shop	208.42	634	153,169	100%	1,532
Costume Jewelry	262.60	1,514	460,980	100%	4,610
Radio, video, stereo	246.58	3,853	1,101,287	100%	11,013
Total		839,543	$145,279,540		$1,422,755

* from Urban Land Institute's Dollars & Cents of Shopping Centers, 1990, U.S. Regional Shopping Centers

Proposed Expanded Chula Vista Shopping Center
Estimated City Sales Tax Revenue Yield without New Department Store

Assumptions:

1991 Inflation Rate = 4.50%
Sales Coefficient = 8.22%
Growth Factor = 5.00%

Store Type	1990 Median Sales per S.F.*	Square Feet	Estimated 1994 Annual Sales (in 1991 $)	Percent Taxable	Estimated City Sales Tax
Arcade, Amusement	$113.37	2,153	$289,835	100%	$2,898
Athletic Footwear	285.56	6,252	2,119,948	100%	21,199
Books	200.10	8,747	2,078,448	100%	20,784
Candy & Nuts	270.74	1,285	413,012	100%	4,130
Cards & Gifts	147.16	13,634	2,382,480	100%	23,825
Children's Apparel	187.73	4,734	1,055,288	100%	10,553
Cinema	57.19	36,000	2,444,734	25%	6,112
Cookie Shop	246.49	709	207,517	100%	2,075
Department Store	134.37	485,729	77,500,645	100%	775,006
Drug Store	172.28	23,400	4,786,959	80%	38,296
Eyeglasses - Optician	242.19	3,148	905,315	100%	9,053
Fabric Shop	96.73	7,739	888,904	100%	8,889
Family Shoes	141.58	19,966	3,356,616	100%	33,566
Fast Food	264.82	9,043	2,843,625	100%	28,436
Health Food	181.07	2,014	433,027	100%	4,330
Home Accessories	174.34	1,149	237,863	100%	2,379
Home Furnishings	206.86	6,929	1,701,986	100%	17,020
Ice Cream	251.29	739	220,510	100%	2,205
Jewelry	452.33	10,931	5,871,165	100%	58,712
Ladies' Apparel	150.47	66,258	11,838,547	100%	118,385
Ladies' Shoes	203.01	8,180	1,971,876	100%	19,719
Ladies' Specialties	174.51	14,114	2,924,713	100%	29,247
Leather Shop	313.75	1,852	689,976	100%	6,900
Luggage	205.67	2,498	610,060	100%	6,101
Men's & Women's Apparel	177.99	4,178	883,025	100%	8,830
Men's Apparel	190.27	16,154	3,649,817	100%	36,498
Men's Shoes	257.42	6,000	1,834,013	100%	18,340
Records & Tapes	246.89	8,491	2,489,266	100%	24,893
Restaurant	179.50	6,000	1,278,865	100%	12,789
Restaurant with Liquor	217.20	12,000	3,094,924	100%	30,949
Services		16,706	0	100%	0
Special Apparel/Unisex	226.18	3,430	921,143	100%	9,211

Proposed Expanded Chula Vista Shopping Center
Estimated City Sales Tax Revenue Yield without New Department Store

Assumptions:

1991 Inflation Rate = 4.50%
Sales Coefficient = 8.22%
Growth Factor = 5.00%

Store Type	1990 Median Sales per S.F.*	Square Feet	Estimated 1994 Annual Sales (in 1991 $)	Percent Taxable	Estimated City Sales Tax
Specialty	190.76	2,467	558,812	100%	5,588
Toys	187.02	10,020	2,225,108	100%	22,251
Unisex Hair	186.67	1,292	286,382	0%	0
Unisex/Jean Shop	181.70	9,600	2,071,262	100%	20,713
Yogurt Shop	208.42	634	156,905	100%	1,569
Costume Jewelry	262.60	1,514	472,224	100%	4,722
Radio, video, stereo	246.58	3,853	1,128,147	100%	11,281
Total		839,543	$148,822,944		$1,457,456

* from Urban Land Institute's Dollars & Cents of Shopping Centers, 1990, U.S. Regional Shopping Centers

Proposed Expanded Chula Vista Shopping Center
Estimated City Sales Tax Revenue Yield without New Department Store

Assumptions:

1991 Inflation Rate = 4.50%
Sales Coefficient = 8.22%
Growth Factor = 7.50%

Store Type	1990 Median Sales per S.F.*	Square Feet	Estimated 1994 Annual Sales (in 1991 $)	Percent Taxable	Estimated City Sales Tax
Arcade, Amusement	$113.37	2,153	$296,736	100%	$2,967
Athletic Footwear	285.56	6,252	2,170,423	100%	21,704
Books	200.10	8,747	2,127,935	100%	21,279
Candy & Nuts	270.74	1,285	422,845	100%	4,228
Cards & Gifts	147.16	13,634	2,439,206	100%	24,392
Children's Apparel	187.73	4,734	1,080,414	100%	10,804
Cinema	57.19	36,000	2,502,942	25%	6,257
Cookie Shop	246.49	709	212,458	100%	2,125
Department Store	134.37	485,729	79,345,899	100%	793,459
Drug Store	172.28	23,400	4,900,934	80%	39,207
Eyeglasses - Optician	242.19	3,148	926,871	100%	9,269
Fabric Shop	96.73	7,739	910,069	100%	9,101
Family Shoes	141.58	19,966	3,436,536	100%	34,365
Fast Food	264.82	9,043	2,911,330	100%	29,113
Health Food	181.07	2,014	443,337	100%	4,433
Home Accessories	174.34	1,149	243,526	100%	2,435
Home Furnishings	206.86	6,929	1,742,510	100%	17,425
Ice Cream	251.29	739	225,760	100%	2,258
Jewelry	452.33	10,931	6,010,954	100%	60,110
Ladies' Apparel	150.47	66,258	12,120,417	100%	121,204
Ladies' Shoes	203.01	8,180	2,018,826	100%	20,188
Ladies' Specialties	174.51	14,114	2,994,350	100%	29,943
Leather Shop	313.75	1,852	706,404	100%	7,064
Luggage	205.67	2,498	624,585	100%	6,246
Men's & Women's Apparel	177.99	4,178	904,049	100%	9,040
Men's Apparel	190.27	16,154	3,736,717	100%	37,367
Men's Shoes	257.42	6,000	1,877,680	100%	18,777
Records & Tapes	246.89	8,491	2,548,534	100%	25,485
Restaurant	179.50	6,000	1,309,314	100%	13,093
Restaurant with Liquor	217.20	12,000	3,168,613	100%	31,686
Services		16,706	0	100%	0
Special Apparel/Unisex	226.18	3,430	943,075	100%	9,431

Proposed Expanded Chula Vista Shopping Center
Estimated City Sales Tax Revenue Yield without New Department Store

Assumptions:

1991 Inflation Rate = 4.50%
Sales Coefficient = 8.22%
Growth Factor = 7.50%

Store Type	1990 Median Sales per S.F.*	Square Feet	Estimated 1994 Annual Sales (in 1991 $)	Percent Taxable	Estimated City Sales Tax
Specialty	190.76	2,467	572,117	100%	5,721
Toys	187.02	10,020	2,278,087	100%	22,781
Unisex Hair	186.67	1,292	293,201	0%	0
Unisex/Jean Shop	181.70	9,600	2,120,578	100%	21,206
Yogurt Shop	208.42	634	160,641	100%	1,606
Costume Jewelry	262.60	1,514	483,467	100%	4,835
Radio, video, stereo	246.58	3,853	1,155,008	100%	11,550
Total		839,543	$152,366,347		$1,492,158

* from Urban Land Institute's Dollars & Cents of Shopping Centers, 1990, U.S. Regional Shopping Centers

Proposed Expanded Chula Vista Shopping Center
Estimated City Sales Tax Revenue Yield with New Department Store

Assumptions:

1991 Inflation Rate = 4.50%
Sales Coefficient = 8.22%
Growth Factor = 10.00%

Store Type	1990 Median Sales per S.F.*	Square Feet	Estimated 1994 Annual Sales (in 1991 $)	Percent Taxable	Estimated City Sales Tax
Arcade, Amusement	$113.37	2,153	$303,637	100%	$3,036
Athletic Footwear	285.56	6,252	2,220,898	100%	22,209
Books	200.10	8,747	2,177,422	100%	21,774
Candy & Nuts	270.74	1,285	432,679	100%	4,327
Cards & Gifts	147.16	13,634	2,495,931	100%	24,959
Children's Apparel	187.73	4,734	1,105,540	100%	11,055
Cinema	57.19	36,000	2,561,150	25%	6,403
Cookie Shop	246.49	709	217,399	100%	2,174
Department Store	134.37	485,729	81,191,152	100%	811,912
Drug Store	172.28	23,400	5,014,909	80%	40,119
Eyeglasses - Optician	242.19	3,148	948,426	100%	9,484
Fabric Shop	96.73	7,739	931,233	100%	9,312
Family Shoes	141.58	19,966	3,516,455	100%	35,165
Fast Food	264.82	9,043	2,979,035	100%	29,790
Health Food	181.07	2,014	453,647	100%	4,536
Home Accessories	174.34	1,149	249,189	100%	2,492
Home Furnishings	206.86	6,929	1,783,033	100%	17,830
Ice Cream	251.29	739	231,011	100%	2,310
Jewelry	452.33	10,931	6,150,744	100%	61,507
Ladies' Apparel	150.47	66,258	12,402,287	100%	124,023
Ladies' Shoes	203.01	8,180	2,065,775	100%	20,658
Ladies' Specialties	174.51	14,114	3,063,986	100%	30,640
Leather Shop	313.75	1,852	722,832	100%	7,228
Luggage	205.67	2,498	639,110	100%	6,391
Men's & Women's Apparel	177.99	4,178	925,074	100%	9,251
Men's Apparel	190.27	16,154	3,823,618	100%	38,236
Men's Shoes	257.42	6,000	1,921,347	100%	19,213
Records & Tapes	246.89	8,491	2,607,802	100%	26,078
Restaurant	179.50	6,000	1,339,763	100%	13,398
Restaurant with Liquor	217.20	12,000	3,242,302	100%	32,423
Services		16,706	0	100%	0
Special Apparel/Unisex	226.18	3,430	965,007	100%	9,650

Proposed Expanded Chula Vista Shopping Center
Estimated City Sales Tax Revenue Yield with New Department Store

Assumptions:

1991 Inflation Rate = 4.50%
Sales Coefficient = 8.22%
Growth Factor = 10.00%

Store Type	1990 Median Sales per S.F.*	Square Feet	Estimated 1994 Annual Sales (in 1991 $)	Percent Taxable	Estimated City Sales Tax
Specialty	190.76	2,467	585,422	100%	5,854
Toys	187.02	10,020	2,331,066	100%	23,311
Unisex Hair	186.67	1,292	300,019	0%	0
Unisex/Jean Shop	181.70	9,600	2,169,894	100%	21,699
Yogurt Shop	208.42	634	164,377	100%	1,644
Costume Jewelry	262.60	1,514	494,710	100%	4,947
Radio, video, stereo	246.58	3,853	1,181,869	100%	11,819
Total		839,543	$155,909,751		$1,526,859

* from Urban Land Institute's Dollars & Cents of Shopping Centers, 1990, U.S. Regional Shopping Centers

APPENDIX E

City of Chula Vista
Chula Vista Shopping Center
Alternative #3

Summary of Projected
Operating Expenditures

DEPARTMENT/ACTIVITY	Fiscal Year 1992	1993	1994	1995	1996	1997	1998	1999
PUBLIC WORKS								
Street Maintenance	$20,284	$20,284	$24,288	$24,288	$24,288	$24,288	$24,288	$24,288
Traffic Operations	6,540	6,540	7,830	7,830	7,830	7,830	7,830	7,830
SUB-TOTAL PUBLIC WORKS	$26,824	$26,824	$32,118	$32,118	$32,118	$32,118	$32,118	$32,118
FIRE	$15,930	$15,729	$21,150	$20,881	$20,616	$20,355	$20,355	$20,355
TOTAL	$42,754	$42,553	$53,268	$52,999	$52,734	$52,473	$52,473	$52,473

City of Chula Vista
Chula Vista Shopping Center
Alternative #3

Summary of Projected City
Operating Revenue

Revenue Source	Fiscal Year							
	1992	1993	1994	1995	1996	1997	1998	1999
GENERAL FUND								
Property Tax	$44,436	$44,436	$44,436	$44,436	$44,436	$44,436	$44,436	$44,436
Sales & Use	831,883	831,883	1,187,044	1,187,044	1,187,044	1,187,044	1,187,044	1,187,044
Franchise Taxes	4,985	4,985	6,303	6,303	6,303	6,303	6,303	6,303
Utility Users	34,157	34,157	37,457	37,457	37,457	37,457	37,457	37,457
Business Licenses	2,739	2,739	3,463	3,463	3,463	3,463	3,463	3,463
Cigarette Taxes	7,903	7,903	11,277	11,277	11,277	11,277	11,277	11,277
Investment Earnings	62,918	62,934	89,421	89,441	89,461	89,480	89,480	89,480
GENERAL FUND TOTAL	$989,022	$989,037	$1,379,401	$1,379,422	$1,379,441	$1,379,461	$1,379,461	$1,379,461

City of Chula Vista
Chula Vista Shopping Center
Alternative #4

Summary of Projected
Operating Expenditures

DEPARTMENT/ACTIVITY	Fiscal Year 1992	1993	1994	1995	1996	1997	1998	1999
PUBLIC WORKS								
Street Maintenance	$20,284	$20,284	$22,286	$22,286	$22,286	$22,286	$22,286	$22,286
Traffic Operations	6,540	6,540	7,185	7,185	7,185	7,185	7,185	7,185
SUB-TOTAL PUBLIC WORKS	$26,824	$26,824	$29,471	$29,471	$29,471	$29,471	$29,471	$29,471
FIRE	$15,930	$15,729	$19,299	$19,053	$18,812	$18,574	$18,574	$18,574
TOTAL	$42,754	$42,553	$48,770	$48,524	$48,283	$48,045	$48,045	$48,045

City of Chula Vista
Chula Vista Shopping Center
Alternative #4

Summary of Projected City
Operating Revenue

Revenue Source	Fiscal Year 1992	1993	1994	1995	1996	1997	1998	1999
GENERAL FUND								
Property Tax	$44,436	$44,436	$44,436	$44,436	$44,436	$44,436	$44,436	$44,436
Sales & Use	831,883	831,883	1,080,872	1,080,872	1,080,872	1,080,872	1,080,872	1,080,872
Franchise Taxes	4,985	4,985	5,752	5,752	5,752	5,752	5,752	5,752
Utility Users	34,157	34,157	37,457	37,457	37,457	37,457	37,457	37,457
Business Licenses	2,739	2,739	3,160	3,160	3,160	3,160	3,160	3,160
Cigarette Taxes	7,903	7,903	10,268	10,268	10,268	10,268	10,268	10,268
Investment Earnings	62,918	62,934	81,655	81,674	81,692	81,710	81,710	81,710
GENERAL FUND TOTAL	$989,022	$989,037	$1,263,601	$1,263,619	$1,263,637	$1,263,655	$1,263,655	$1,263,655

APPENDIX C

LINSCOTT, LAW & GREENSPAN, ENGINEERS
TRANSPORTATION PLANNING • TRAFFIC ENGINEERING • PARKING

8989 RIO SAN DIEGO DRIVE, SUITE 135, SAN DIEGO, CALIFORNIA 92108
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LEON D. WARD, P.E.
DONALD W. BARKER, P.E.

August 12, 1991

Mr. Lee Sherwood
RECON
7460 Mission Valley Road
San Diego, CA 92108

Subject: Revised Traffic Impact Analysis for the Chula Vista Mall Expansion

Dear Lee:

The enclosed revised traffic impact analysis for the expansion of the Chula Vista Mall has been modified to respond to the trip generation/distribution and Circulation Element concerns expressed by the City of Chula Vista.

In the preparation of the original June 25 traffic report, trip generation and distribution assumptions were made based on the information available at the time. The January, 1990 San Diego Association of Governments (SANDAG) traffic generation rates for an average super regional mall of Chula Vista's size in San Diego County were utilized (40 trips per 1,000 square feet). This rate was applied to the square footage of the net mall expansion, and resulted in a trip generation of 3,000 ADT (75,000 SF x 40/TE/1,000 SF).

In reviewing the traffic report, the Chula Vista Engineering Department had a different view concerning the amount of traffic the mall will generate after the expansion. The City believes that the mall will generate 48 trip ends per 1,000 square feet. This is based on the 1978 SANDAG trip generation study which showed the Chula Vista Mall was generating 48 trip ends per 1,000 square feet with other super regional malls generating between 24 and 73 trip ends per 1,000 square feet. This results in the entire Mall generating 42,480 ADT (885,000 SF x 48 TE/1,000 SF). The Mall is currently generating about 30,000 ADT, so there would be a net increase of about 12,240 ADT. Assuming that 50% of these new trips would be "pass-by", there would be a net generation of about 6,000 new ADT, double what we assumed.

The City also believes that a greater percentage of vehicles will utilize H Street to reach Mervyn's, the cinema and the drug store than was assumed in the traffic report, since H Street is the "front door" of the Mall.

Additionally, In the project area, H Street is classified as a Six Lane Major but is only constructed to four lanes. Project traffic entering/exiting driveways impedes thru traffic on H Street due to the absence of shoulders or turning lanes. The project frontage should be widened to Circulation Element standards. There are several driveways along the Mall frontage and the third lane will function as a deceleration/acceleration lane serving the Mall driveways, reducing friction and conflicts with thru traffic.

Based on the City's trip generation/distribution assumptions, and roadway classification, there is a need to dedicate right-of-way and widen H Street. The impacts of the expansion remain measurable, as stated in our report. Our analysis was not revised, but the executive summary, mitigation measures and conclusions have been revised to reflect the City's concerns.

Please call is if you have any questions.

Sincerely,
LINSCOTT, LAW & GREENSPAN

John P. Keating, P.E.
Senior Transportation Engineer

JPK/JAB/pb
3-910439

cc: Hal Rosenberg

EXECUTIVE SUMMARY

This traffic study has been prepared to evaluate the traffic impacts on the local street system from the proposed 75,000 square feet expansion of the Chula Vista Mall. The Mall is located on the east side of Broadway between H Street and I Street. The expansion is expected to generate 3,000 ADT with 40 inbound/20 outbound trips during the morning peak hour and 135 inbound/135 outbound trips during the afternoon peak hour.

Eleven key intersections were analyzed for the existing, existing + growth + project and existing + growth + project + related projects conditions. The existing operations are good (LOS C or better) in the vicinity of the project.

The mall expansion is calculated to have measurable traffic impacts on H Street along the project frontage. In the project area, H Street is classified as a Six Lane Major but is only constructed to four lanes. Project traffic entering/exiting driveways impedes thru traffic on H Street due to the absence of shoulders or turning lanes. The project frontage should be widened to Circulation Element standards. There are several driveways along the Mall frontage and the third lane will function as a deceleration/ acceleration lane serving the Mall driveways, reducing friction and conflicts with thru traffic. A raised median should be installed on H Street in its ultimate location between Broadway and 4th Avenue (with a median break allowing eastbound and westbound left-turns only at the proposed Scripps Hospital driveway and possibly midway between Broadway and 5th Avenue). Additionally, eastbound right-turn lanes should be striped at all project driveways on H Street (short-term only) and parking should be prohibited on the north side of H Street between Broadway and 4th Avenue.

The Shopping Center currently provides good access and on-site circulation. A few changes to the post-expansion site plan are recommended, including specific modifications to the proposed parking structure.

The related projects are calculated to have measurable but not significant traffic impacts. Measures are not needed to mitigate the related projects traffic impacts.

The calculations show that capacity problems are anticipated on H Street between 3rd Avenue and Hilltop Drive in the buildout condition, both with and without the proposed expansion. The additional traffic generated by the Mall expansion is expected to be minimal in the residential areas located immediately south of the Mall and should not have a significant impact in those areas.

Three off-site, two on-site and a no-project alternative were qualitatively analyzed.

MITIGATION MEASURES

The traffic generated by the expansion of the mall has a measurable traffic impact on H Street along the shopping center frontage. The shopping center as a whole generates a considerable amount of the H Street traffic. In the project area, H Street is classified as a Six Lane Major but is only constructed to four lanes. Project traffic entering/exiting driveways impedes thru traffic on H Street due to the absence of shoulders or turning lanes. The project frontage should be widened to Circulation Element standards. There are several driveways along the Mall frontage and the third lane will function as a deceleration/acceleration lane serving the Mall driveways, reducing friction and conflicts with thru traffic. Therefore, the following measures are recommended to mitigate the project impacts and to provide consistency with the Circulation Element of the General Plan.

1) Dedicate the right-of-way along the shopping center's H Street frontage to Six Lane Major standards (56 feet south of the centerline).

2) Widen H Street on the south along the shopping center frontage to Six-Lane Major standards (46 feet south of centerline).

3) Install a raised median in its ultimate location on H Street between Broadway and 4th Avenue (with a median break allowing eastbound and westbound left-turns only at the proposed Scripps Hospital driveway and possibly midway between Broadway and 5th Avenue).

4) Stripe eastbound right-turn lanes at all project driveways on H Street (short-term only). The short-term right-turn lanes will be converted to a thru lane in the long-term.

5) Prohibit parking on the north side of H Street between Broadway and 4th Avenue.

CONCLUSIONS

The mall expansion is calculated to have measurable traffic impacts on H Street along the project frontage. In the project area, H Street is classified as a Six Lane Major but is only constructed to four lanes. Project traffic entering/exiting driveways impedes thru traffic on H Street due to the absence of shoulders or turning lanes. The project frontage should be widened to Circulation Element standards. There are several driveways along the Mall frontage and the third lane will function as a deceleration/acceleration lane serving the Mall

driveways, reducing friction and conflicts with thru traffic. Therefore, it is recommended among other things, that R/W be dedicated and H Street be widened along the shopping center frontage.

The shopping center currently provides good access and on-site circulation. A few changes to the post-expansion site plan are recommended including specific modification to the proposed parking structure. Adequate access and on-site circulation should be provided during the expansion construction. Traffic impacts on the surrounding residential areas are expected to be minimal.

The related projects are calculated to have measurable but not significant traffic impacts.

The calculations show that capacity problems are anticipated on H Street between 3rd Avenue and Hilltop Drive in the buildout condition, both with and without the proposed expansion.

TRAFFIC IMPACT ANALYSIS
CHULA VISTA MALL EXPANSION
CHULA VISTA, CALIFORNIA

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June 25, 1991

JPK/JAB/pb
3-910439

EXECUTIVE SUMMARY

This traffic study has been prepared to evaluate the traffic impacts on the local street system from the proposed 75,000 square feet expansion of the Chula Vista Mall. The Mall is located on the east side of Broadway between H Street and I Street. The expansion is expected to generate 3,000 ADT with 40 inbound/20 outbound trips during the morning peak hour and 135 inbound/135 outbound trips during the afternoon peak hour.

Eleven key intersections were analyzed for the existing, existing + growth + project and existing + growth + project + related projects conditions. The existing operations are good (LOS C or better) in the vicinity of the project.

The project is calculated to have measurable but not significant traffic impacts. Measures are not needed to mitigate project traffic impacts. The related projects are also calculated to have measurable but not significant traffic impacts. Measures are not needed to mitigate the related projects traffic impacts.

The calculations show that capacity problems are anticipated on H Street between 3rd Avenue and Hilltop Drive in the buildout condition, both with and without the proposed expansion. The additional traffic generated by the Mall expansion is expected to be minimal in the residential areas located immediately south of the Mall and should not have a significant impact in those areas.

Three off-site, two on-site and a non-project alternative were qualitatively analyzed.

The Shopping Center currently provides good access and on-site circulation. A few changes to the post-expansion site plan are recommended, including specific modifications to the proposed parking structure.

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TRAFFIC IMPACT ANALYSIS
CHULA VISTA MALL EXPANSION
CHULA VISTA, CALIFORNIA

INTRODUCTION

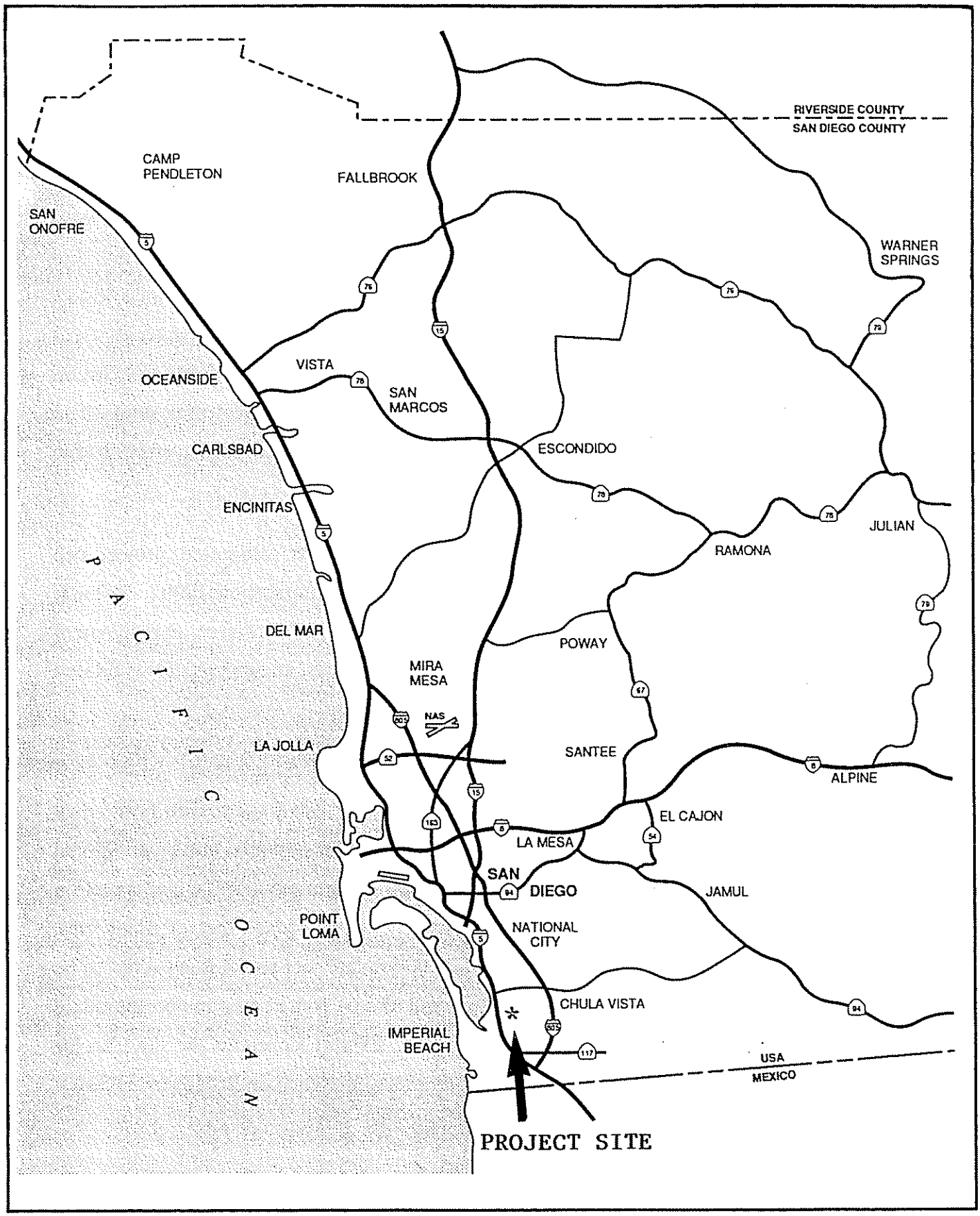
The following traffic study has been prepared to evaluate the traffic impacts on the local street system from the proposed 75,000 square foot expansion of the Chula Vista Mall, "the project". The Mall is located on approximately 65 acres within the City of Chula Vista's Towne Centre II Redevelopment Plan Area on the east side of Broadway between H Street and I Street. The expansion will occur on the south side of the Mall north of I Street. **Exhibit 1** shows the vicinity of the project. **Exhibit 2** shows the project area map. The additional traffic expected to be generated has been added to the existing on-street traffic volumes and the traffic impacts were analyzed at eleven key intersections.

Included in this traffic analysis are the existing traffic counts, estimated project trip generation/distribution/assignment, capacity analysis at the key intersections both before and after the proposed expansion, an assessment of six alternatives to the project, an assessment of site access and on-site circulation, project mitigation measures, an analysis of two related projects and a buildout year analysis.

PROJECT DESCRIPTION

The project site currently consists of 810,900 square feet of retail space with both small tenant shops and three large department stores. The Mall is proposing to add an additional 141,000 square feet of retail space including a Mervyn's department store, a cinema and a drugstore. The project will also delete approximately 66,000 square feet of retail uses. Therefore, the total net area expansion is about 75,000 square feet and it is expected to be completed in 1994. A two-level parking structure will also be constructed to accommodate additional patrons anticipated with the Mall expansion. **Exhibit 3** presents the site plan for the project. The Mall currently provides twelve driveways, four each on Broadway, H Street and I Street.

Traffic from the project currently uses H Street, I Street and Broadway to reach regional transportation facilities.



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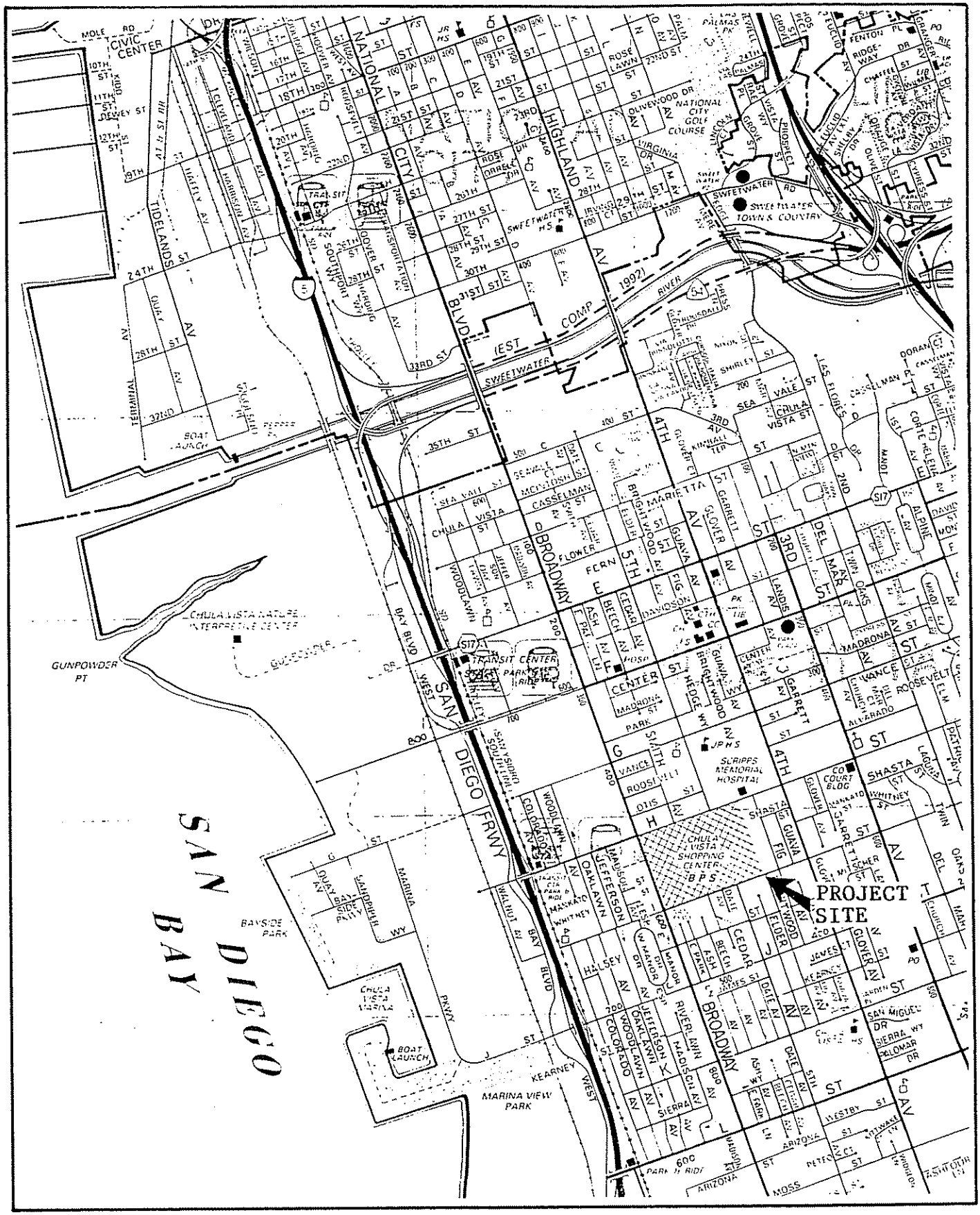
MILES

1

VICINITY MAP



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PROJECT AREA MAP

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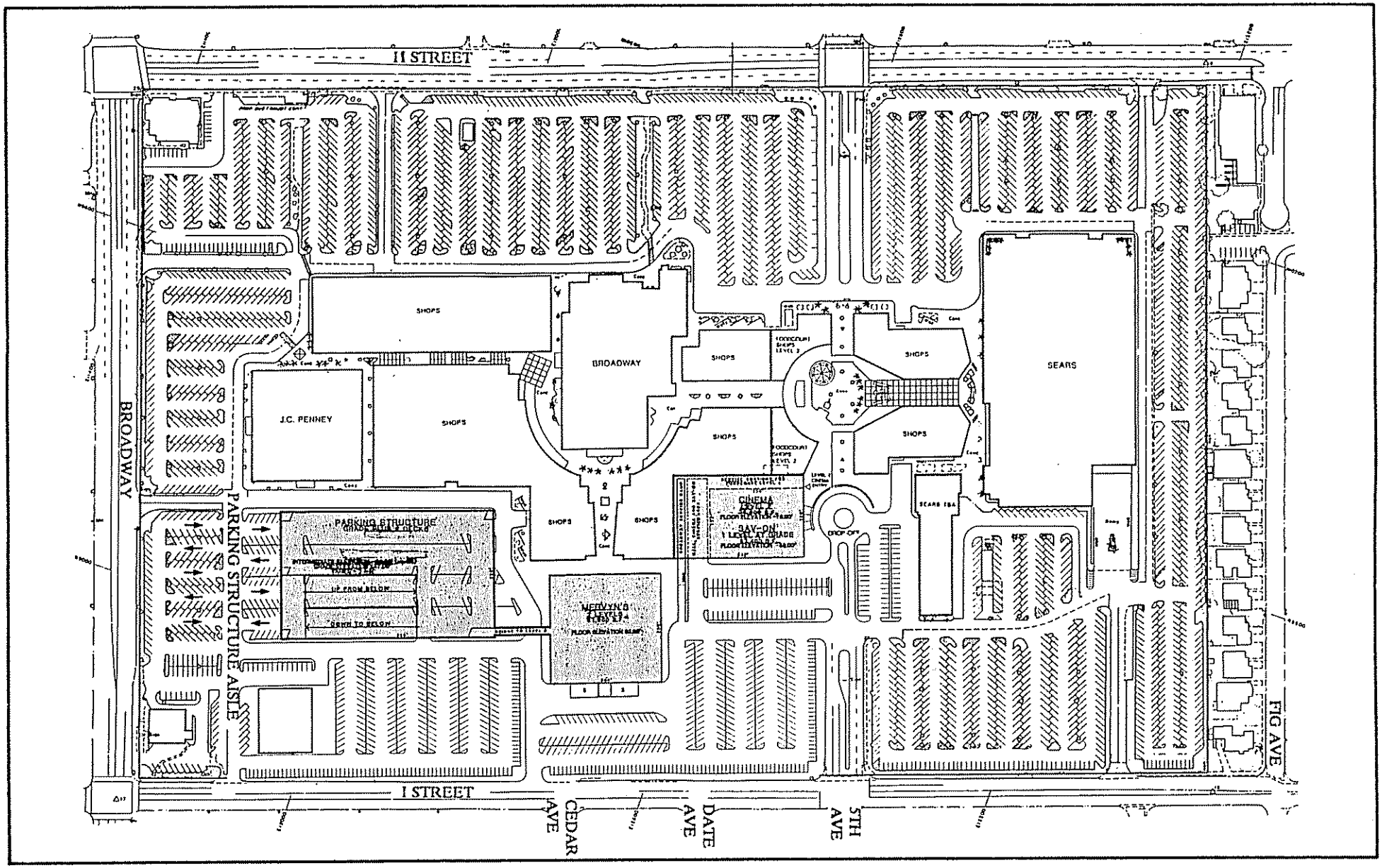

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PROPOSED SITE PLAN

LINSCOTT AW & GREENSPAN

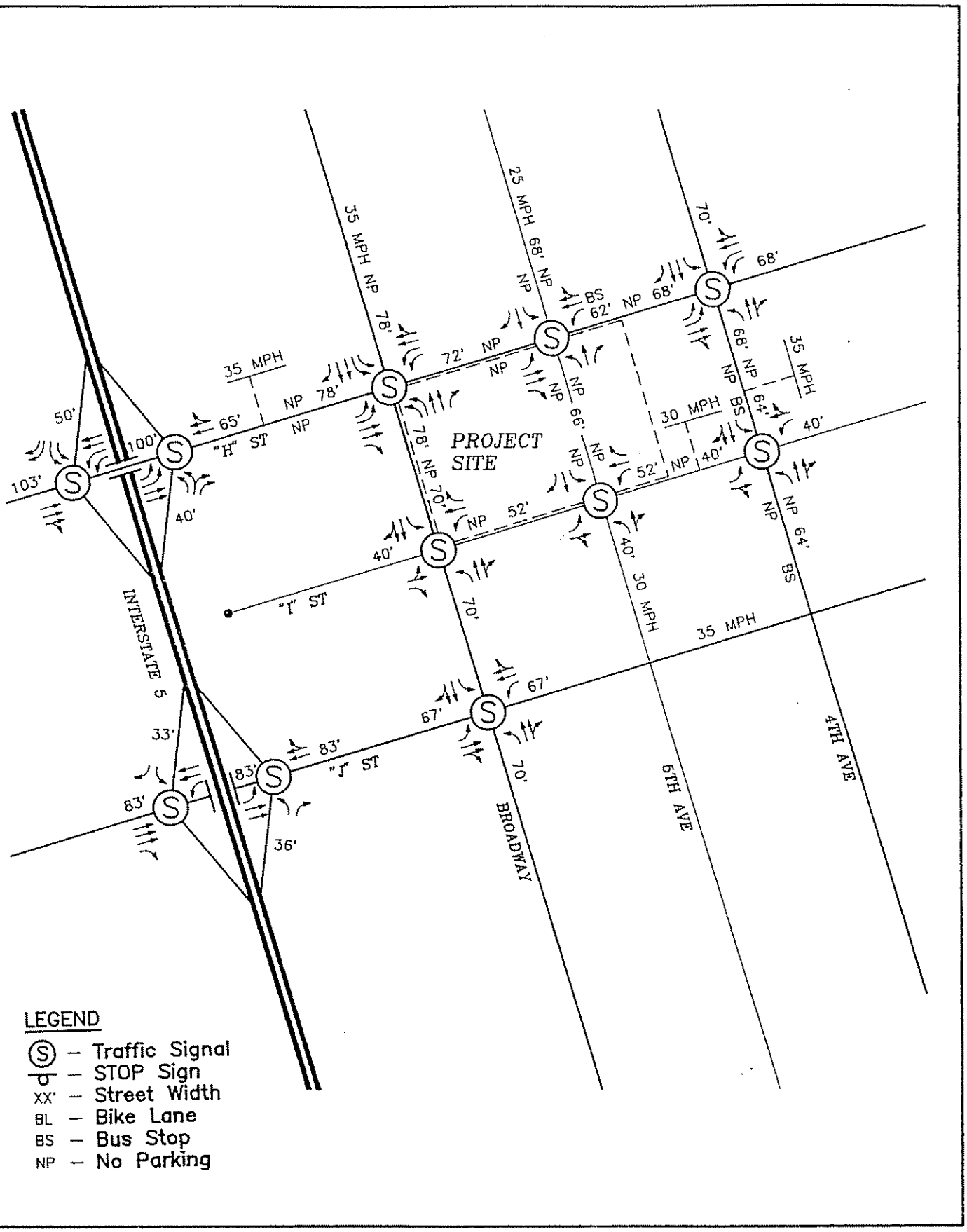
CHULA VISTA MALL PANSION

EXISTING STREET SYSTEM

The City of Chula Vista standards indicate that expressways should be 104 feet in 128 feet of right-of-way (R/W), providing six thru lanes, a 16 foot wide raised median/left-turn lane and emergency parking or bike lanes. Prime Arterials should be 104 feet wide in 128 feet of R/W providing six thru lanes, a 16 foot wide median/left-turn lane and emergency parking or bike lanes. Six lane Majors should be 104 feet wide in 128 feet of R/W providing six thru lanes, a 16 foot wide raised median/left-turn lane and curbside parking or bike lanes. Four lane Majors should be 80 feet wide in 100 feet of R/W, providing four thru lanes, a 16 foot wide median/left-turn lane and curbside parking or bike lanes. A Class I Collector should be 74 feet wide in 94 feet of R/W providing four thru lanes and a continuous two-way left-turn lane separating the two directions of traffic flow. A Class II Collector should be 52 feet wide in 72 feet of R/W, providing two thru lanes and curbside parking. A Class III Collector should be 40 feet wide in 60 feet of R/W with two thru lanes and curbside parking.

H Street is classified as a six lane Major from I-5 to Third Avenue and from Hilltop Drive to I-805. It is classified as a four lane Major from Third Avenue to Hilltop Drive. It currently provides two thru lanes in each direction and varies in width from 62 feet to 103 feet wide in the project vicinity. Double left-turn lanes are provided at the I-5 ramps, Broadway and the 4th Street intersections. H Street is signalized at the I-5 ramps, Broadway, 5th Avenue and 4th Avenue in the project vicinity. Curbside parking is not allowed. The speed limit is posted at 35 mph. **Exhibit 4** shows the existing condition diagram.

I Street is classified as a Class II Collector. It currently provides one lane in each direction and left-turn lanes are provided at major intersections. It is about 40 feet wide at the 4th Avenue intersection and about 52 feet wide at the 5th Avenue intersection. I Street is signalized at Broadway, 5th Avenue and 4th Avenue in the project vicinity. Curbside parking is allowed along part of its length, mostly on the south side of the street. The speed limit is posted at 30 mph.



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EXISTING CONDITIONS DIAGRAM

NO SCALE

J Street is a Class I Collector east of Broadway and a four lane Major west of Broadway. It joins I-5 to I-805 where it becomes East J Street. It currently provides two thru lanes in each direction with left-turn lanes at major intersections. It is about 67 feet wide at the Broadway intersection and 83 feet wide at the I-5 ramps. It is signalized at the I-5 ramps and at Broadway in the project vicinity. The speed limit is posted at 35 mph.

Broadway is a four lane Major that runs from the Sweetwater River where it becomes National City Boulevard southward to the Otay River where it becomes Beyer Boulevard. It currently provides the two thru lanes in each direction. It is signalized at H Street, I Street and J Street in the project vicinity. Double left-turn lanes are provided at the H Street intersection. Broadway is about 78 feet wide at the H Street intersection and 70 feet wide at the I Street and J Street intersections. Curbside parking is allowed. The speed limit is posted at 35 mph.

5th Avenue is classified as a Class II Collector. It currently provides one thru lane in each direction. Fifth Avenue ends as a driveway into the Mall on both the north and south ends of the Mall. It is signalized at H Street and I Street. Curbside parking is allowed south of I Street. The speed limit is posted at 25 mph north of H Street and 30 mph south of I Street.

4th Avenue is classified as a Class I Collector. It currently provides two thru lanes in each direction with left-turn lanes at major intersections. It is about 64 feet wide at I Street. It is 70 feet and 68 feet wide north and south of H Street, respectively. It is signalized at H Street and I Street in the project vicinity. The speed limit is posted at 35 mph.

State Route 54 (SR 54) is currently under construction and will provide a major link between I-5 and I-805 and areas east of I-805. The only ramps currently open at the I-5/SR 54 interchange are the southbound to eastbound and the westbound to northbound ramps. The completion of SR 54 is expected to reduce the amount of through traffic on H Street and other east-west roadways in the project area.

EXISTING TRAFFIC VOLUMES

Traffic counts in the area show typical peak periods. **Table 1** is a summary of recent machine and manual counts. Machine counts are from the City of Chula Vista's count records. Manual counts conducted by LLG are for the key intersections identified for analysis. **Exhibit 5** shows the existing traffic volumes during the PM peak hour as well as on a daily basis. **Appendix A** includes copies of the intersection manual count sheets.

PROJECT TRAFFIC GENERATION

The number of estimated trips to be generated by the expansion of the Mall is based on traffic generation rates published by SANDAG in January, 1990 for Super Regional Shopping Centers (40 daily trip ends/1,000 square feet). The average April, 1991 traffic generation for the shopping center according to the driveway counts was 37.5 daily trip ends/1,000 square feet. Also, April was the biggest traffic generating month in 1990 at the Mall, other than December. Therefore, the 40 rate should be conservatively indicative of Mall operations. **Table 2A** shows the project generation calculations. The proposed expansion is estimated to generate 3,000 daily trip-ends (1,500 in/1,500 out) with 40 inbound/20 outbound trips during the AM peak hour and 135 inbound/135 outbound trips during the PM peak hour.

PROJECT TRAFFIC DISTRIBUTION

The estimated traffic to be generated by the expansion of the Mall was distributed to the roadway system based on a Select Zone Assignment prepared by Willdan Associates. The Select Zone Assignment distribution was modified to reflect the fact that the Mall expansion will occur entirely on the southern portion of the shopping center. The regional traffic distribution is shown on **Exhibit 6**. The percentages do not add up to 100 because of very local origins and destinations within the corridor of the percentages.

PROJECT TRAFFIC ASSIGNMENT

Once the trip distribution is established, the project generated traffic is assigned to the local street system. **Exhibit 7** shows the trip assignment due to the expansion of the shopping center. The assignment of the project trips was done in such a way to provide a "worst case" analysis in terms of intersection and residential impacts. The PM peak hour turn moves are

TABLE 1

EXISTING TRAFFIC VOLUMES

STREET/LOCATION	DATE	DIR	24-HR VOLUME	PM PEAK HR	
				BEGAN	VOL
H Street					
e/o I-5	1991	BOTH	27,810		
e/o Broadway	1991	BOTH	25,040		
e/o 5th Avenue	1990	BOTH	28,340		
e/o 4th Avenue	1991	BOTH	26,470		
I Street					
e/o Broadway	1990	BOTH	7,540		
e/o 5th Avenue	1991	BOTH	10,070		
e/o 4th Avenue	1990	BOTH	8,580		
J Street					
e/o I-5	1991	BOTH	17,570		
e/o Broadway	1991	BOTH	10,780		
e/o 5th Avenue	1990	BOTH	11,360		
e/o 4th Avenue	1991	BOTH	11,380		
Broadway					
n/o H Street	1991	BOTH	21,650		
n/o I Street	1990	BOTH	26,520		
n/o J Street	1991	BOTH	25,000		
s/o J Street	1990	BOTH	25,600		
5th Avenue					
n/o H Street	1990	BOTH	6,450		
n/o J Street	1990	BOTH	4,660		
s/o J Street	1991	BOTH	4,970		
4th Avenue					
n/o H Street	1991	BOTH	21,030		
n/o I Street	1990	BOTH	19,530		
n/o J Street	1991	BOTH	18,040		
s/o J Street	1990	BOTH	17,910		

TABLE 1

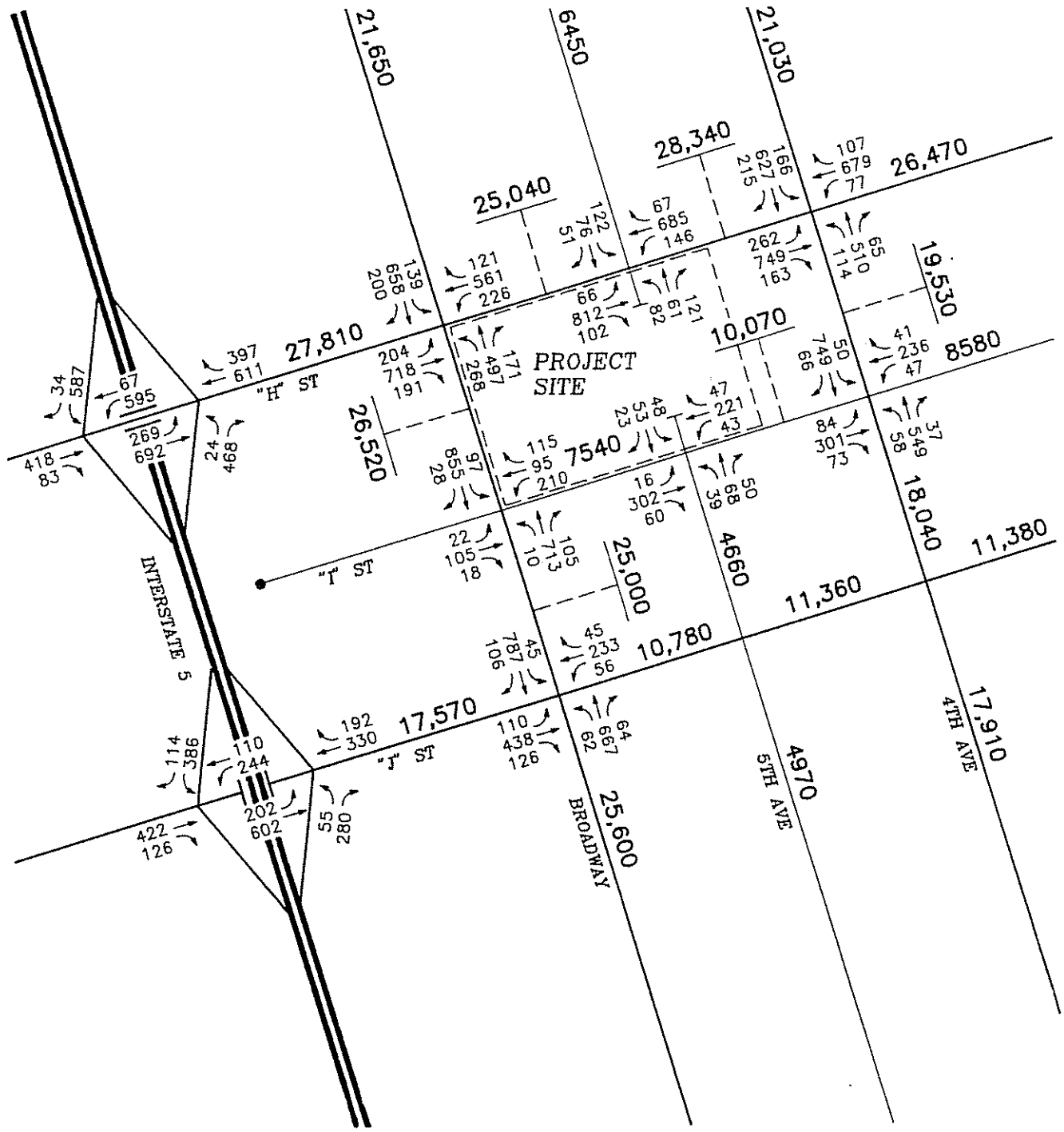
EXISTING TRAFFIC VOLUMES
(Continued)

STREET/LOCATION	DATE	DIR	24-HR VOLUME	PM PEAK HR	
				BEGAN	VOL
H Street/ I-5 SB Ramps	5/7/91	SB EB WB	MANUAL COUNT	4:00	621 501 662
H Street/ I-5 NB Ramps	5/7/91	NB EB WB	MANUAL COUNT	4:00	492 961 1,008
H Street/ Broadway	5/7/91	NB SB EB WB	MANUAL COUNT	4:00	936 997 1,113 907
H Street/ 5th Avenue/ Mall Entrance	5/7/91	NB SB EB WB	MANUAL COUNT	4:00	264 249 980 898
H Street/ 4th Avenue	5/7/91	NB SB EB WB	MANUAL COUNT	4:00	689 1,008 1,174 863
I Street/ Broadway	5/8/91	NB SB EB WB	MANUAL COUNT	4:30	828 980 145 420
I Street/ 5th Avenue/ Mall Entrance	5/8/91	NB SB EB WB	MANUAL COUNT	4:00	157 124 378 311
I Street/ 4th Avenue	5/7/91	NB SB EB WB	MANUAL COUNT	4:15	644 865 458 324

TABLE 1

EXISTING TRAFFIC VOLUMES
(Continued)

STREET/LOCATION	DATE	DIR	24-HR VOLUME	PM PEAK HR	
				BEGAN	VOL
J Street/ I-5 SB Ramps	5/8/91	SB EB WB	MANUAL COUNT	4:00	500 548 354
J Street/ I-5 NB Ramps	5/8/91	NB EB WB	MANUAL COUNT	4:00	335 804 522
J Street/ Broadway	5/8/91	NB SB EB WB	MANUAL COUNT	4:00	793 938 674 334



NOTE: – ADT's are shown midblock
– PM peak hour volumes are shown at the intersections

NO SCALE

LINSCOTT, LAW & GREENSPAN

EXISTING TRAFFIC VOLUMES PM PEAK HOUR & ADT's

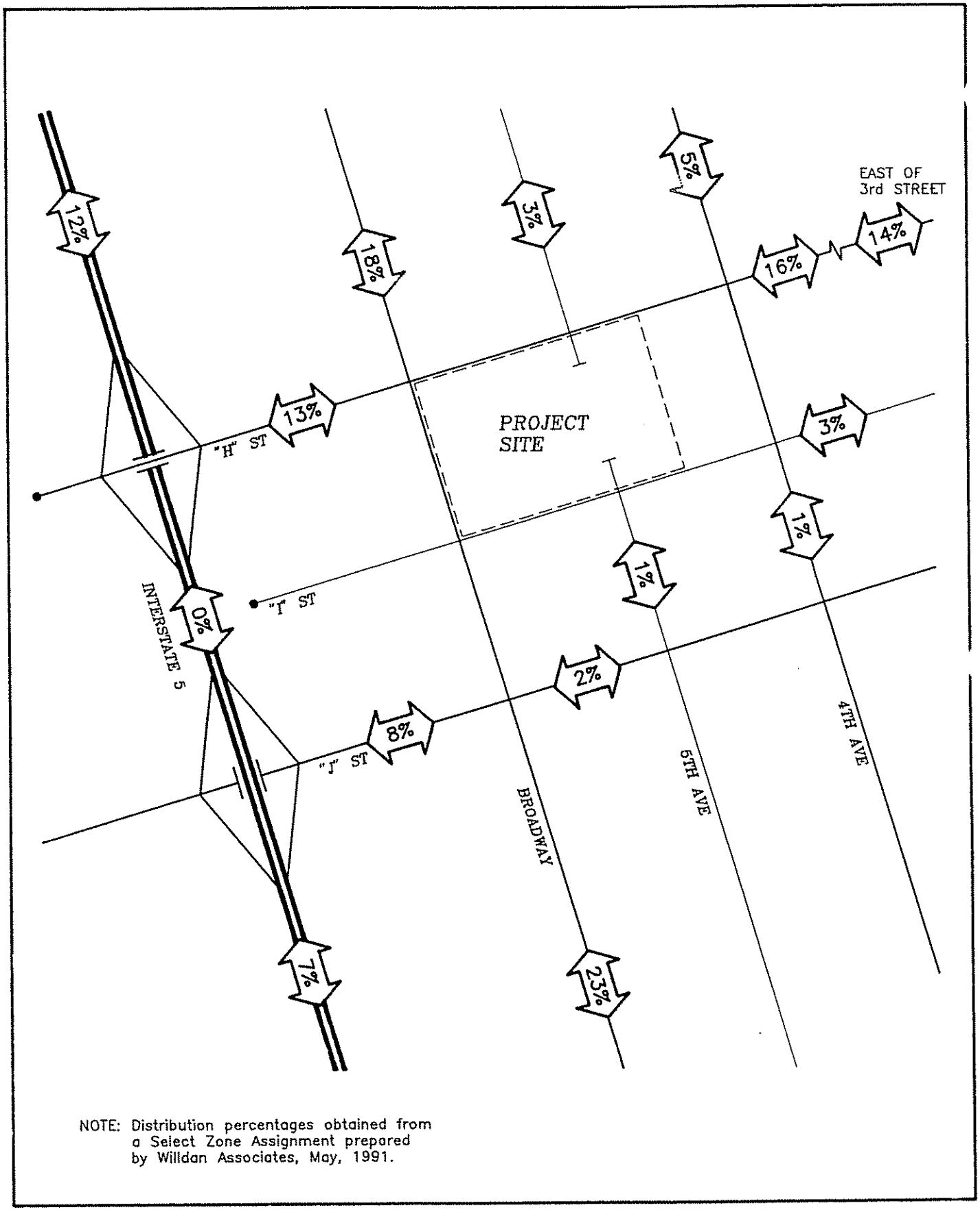
CHULA VISTA MALL EXPANSION

TABLE 2A

PROJECT TRAFFIC GENERATION

USE	SIZE	DAILY TRIP ENDS (ADT)		AM PEAK HOUR			PM PEAK HOUR		
		FACTOR	VOLUME	% OF ADT	IN:OUT SPLIT	VOLUME IN OUT	% OF ADT	IN:OUT SPLIT	VOLUME IN OUT
Super Regional Shopping Center Expansion	7,500 SF	40	3,000	2%	7:3	40 20	9%	5:5	135 135

1. Source: Generation factors derived from SANDAG, January, 1990
2. Factor is a trip end per 1,000 square feet.
3. Trip ends are one-way traffic movements, entering or leaving.
4. All ADT's are rounded to nearest 10 and peak hours to nearest 5.

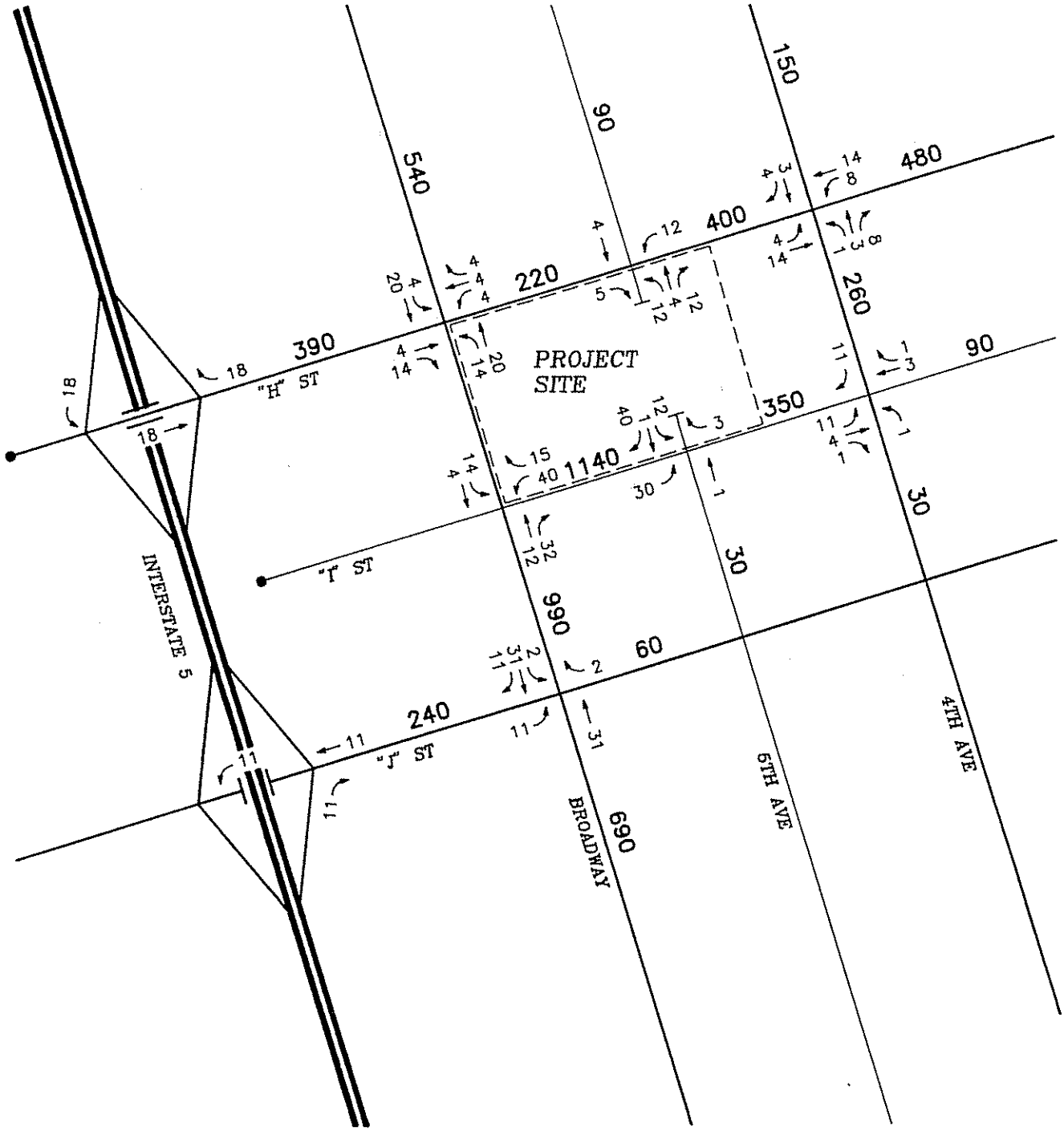


NOTE: Distribution percentages obtained from a Select Zone Assignment prepared by Willdan Associates, May, 1991.

6

NO SCALE

REGIONAL TRAFFIC DISTRIBUTION



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NO SCALE

PROJECT TRAFFIC VOLUMES
PM PEAK HOUR & ADT's

LINSCOTT, LAW & GREENSPAN

CHULA VISTA MALL EXPANSION

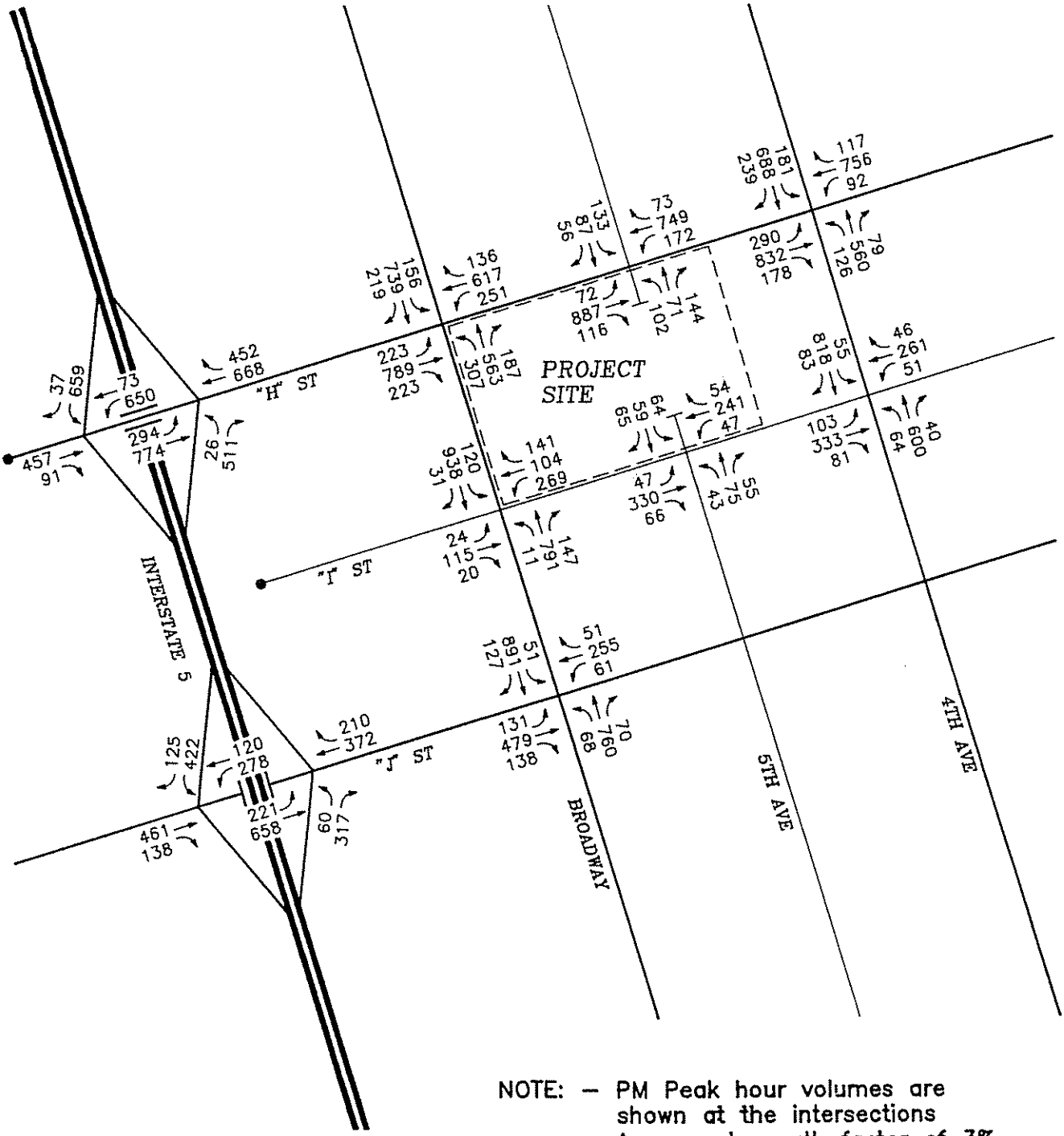
shown at the intersections and the ADT's are shown on the roadway segments. **Exhibit 8** shows the existing + project PM peak hour traffic volumes.

RELATED PROJECTS

Conversations with the City Planning and Engineering Departments revealed that two related projects should be included in the traffic impact analysis. These projects were not generating traffic at the time LLG Engineers were conducting peak hour counts. The Bay Front Development project was not included in the short-term analysis since it is assumed that it will not be completed and occupied by 1994, the study year for the short-term analysis. **Table 2B** shows the related projects' trip generation. **Exhibit 9** shows the summation of the traffic volumes for the two related projects. **Exhibit 10** shows the existing + project + related projects' traffic volumes on a PM peak hour basis. The related projects are described in detail below.

SCRIPPS MEMORIAL HOSPITAL is located on the northeast corner of H Street and 5th Avenue in Chula Vista. The hospital is proposing to expand an 8.9 acre parcel west of the existing Scripps Hospital. The addition includes hospital facilities, a parking structure and medical office spaces. The parcel is currently developed with commercial uses. Arby's, First Interstate Bank and the Readi Care Center are assumed to be retained on the site in addition to the proposed Phase I hospital expansion. This alternate is the worst case scenario in terms of traffic generation. Vehicular access is via H Street and 5th Avenue. Traffic data for this project was obtained from the report prepared by Willdan Associates in October, 1990. The net short-term traffic which will result from the redevelopment of the site is shown in Table 2B, which shows that the redevelopment is calculated to result in 394 more ADT with a decrease of 56 PM inbound trips and an increase of 203 PM outbound trips.

ROHR INDUSTRIES OFFICE COMPLEX is proposed to consist of a three-story building with 245,000 square feet of corporate office space housing 1,295 employees. The project site is located between F Street and G Street, west of Bay Boulevard and the railroad tracks. Traffic data for this project was obtained from the report prepared by JHK & Associates in April, 1991. The project is estimated to generate about 2,450 daily trip ends (1,225 in/1,225 out) with 35 inbound/330 outbound trips during the PM peak hour.



NOTE: – PM Peak hour volumes are shown at the intersections
– An annual growth factor of 3% was applied to the existing traffic volumes for 3 years before the project volumes were added.

8

EXISTING + GROWTH + PROJECT PM PEAK HOUR

NO SCALE

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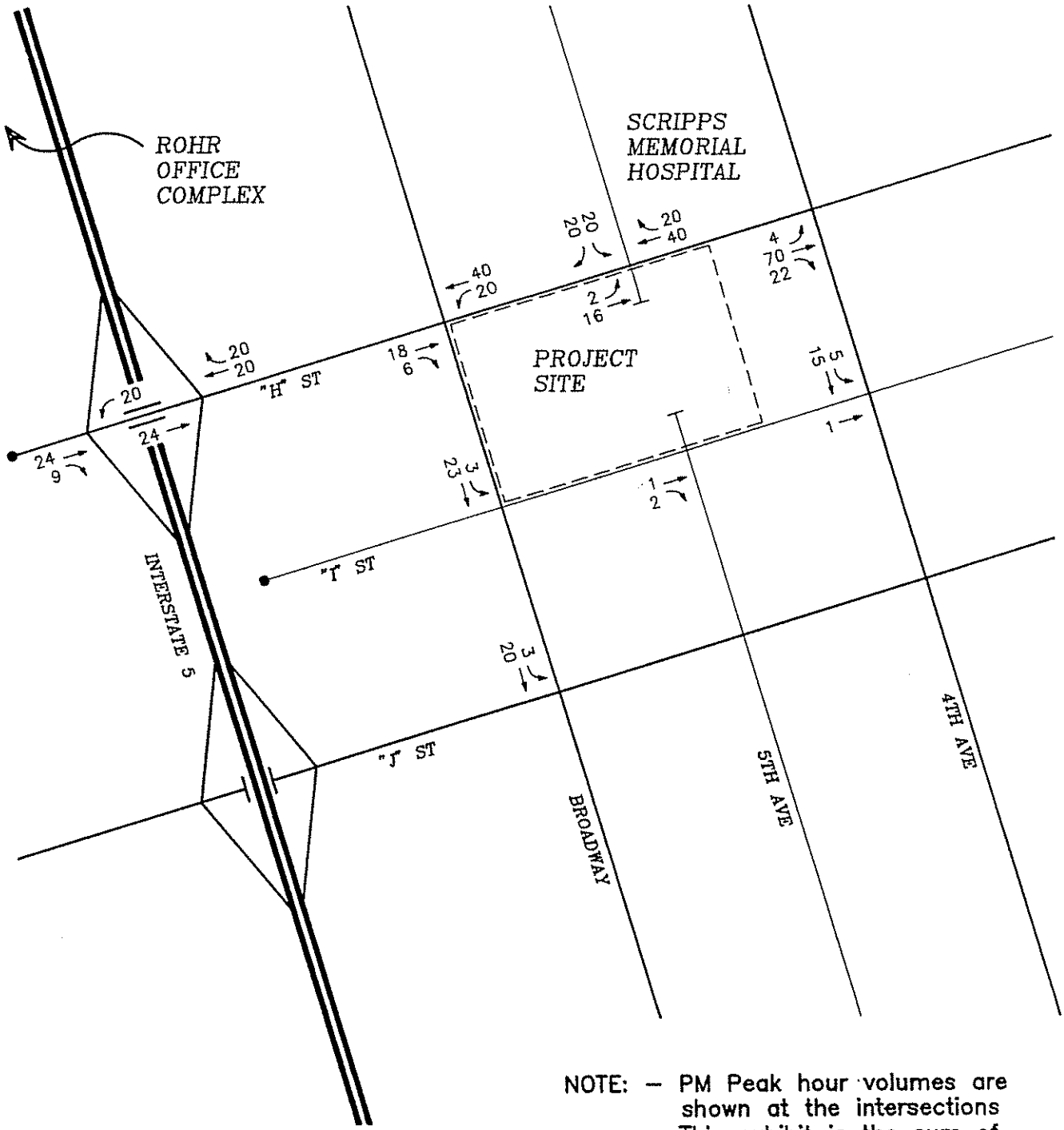
CHULA VISTA MALL EXPANSION

TABLE 2B

RELATED PROJECTS TRAFFIC GENERATION

USE	SIZE	DAILY TRIP ENDS (ADT)		AM PEAK HOUR				PM PEAK HOUR			
		RATE	VOLUME	% OF ADT	IN:OUT SPLIT	VOLUME IN	VOLUME OUT	% OF ADT	IN:OUT SPLIT	VOLUME IN	VOLUME OUT
SCRIPPS HOSPITAL EXP.											
- Hospital Expansion	99 beds	20	1,980	9%	8:2	142	36	11%	3:7	65	153
- Medical Office	60,000 SF	50	3,000	6%	8:2	144	36	10%	3:7	90	210
- Readi Care Center	3,250 SF	50	163	6%	8:2	8	2	10%	3:7	5	11
- Bank	6,750 SF	200	1,350	5%	6:4	41	27	10%	5:5	68	68
- Arby's	2,450 SF	700	1,715	4%	6:4	41	27	8%	5:5	69	69
SUBTOTAL			8,208			376	128			297	511
Existing Land Use			7,814			225	191			353	308
NET CHANGE			394			151	-63			-56	203
ROHR OFFICE COMPLEX											
- Corporate Office	245,000 SF	10	2,450	15%	9:1	330	35	15%	1:9	35	330
TOTAL			2,844			481	-28			-21	533

1. Scripps Hospital expansion generation derived from traffic report prepared by Willdan Associates, October, 1990. The land uses were changed slightly to provide a more conservative analysis.
2. Rohr Office Complex generation derived from traffic report prepared by JHK & Associates, April, 1991.
3. Factor is a trip end per bed or per 1,000 square feet.
4. Trip ends are one-way traffic movements, entering or leaving.



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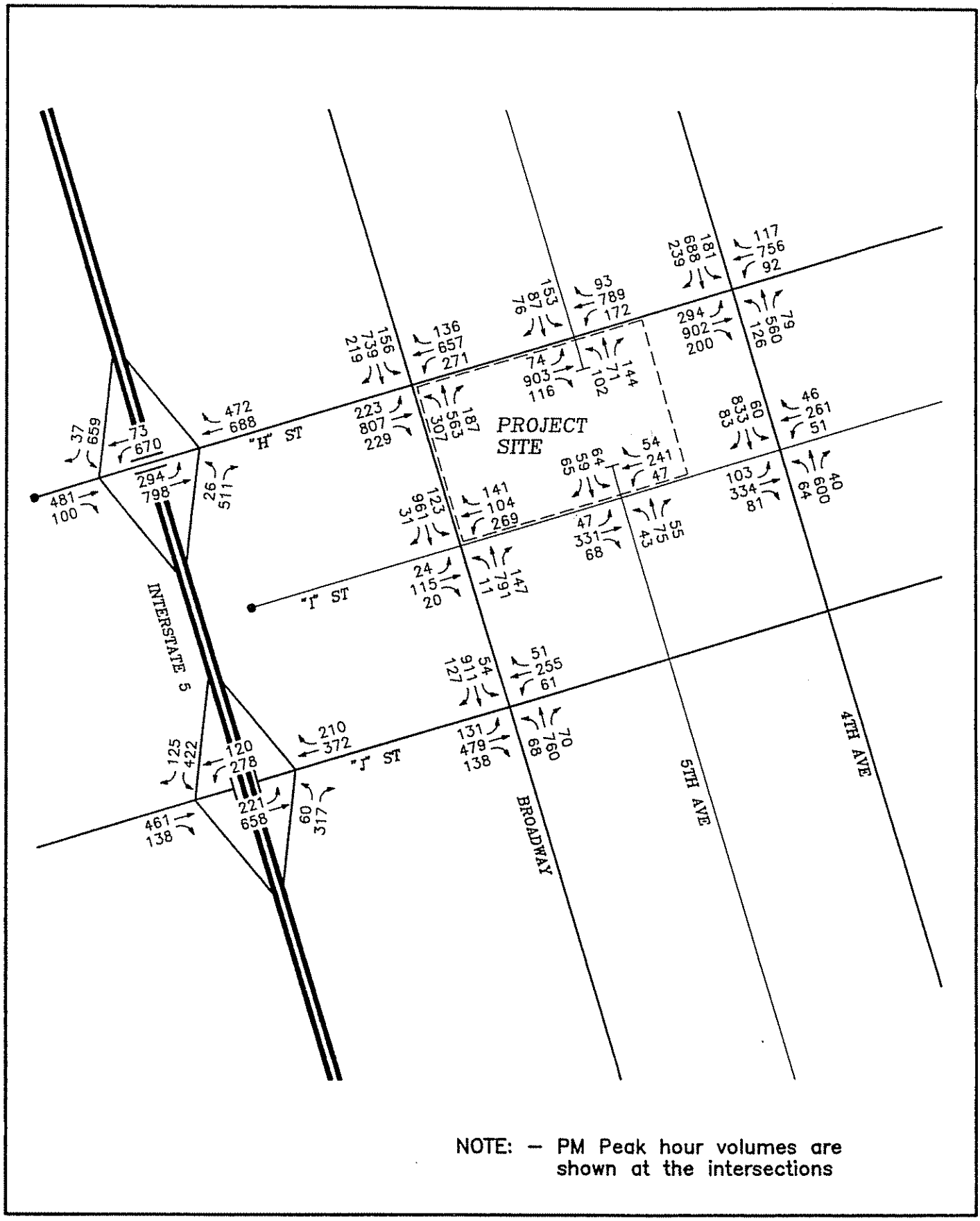
9

RELATED PROJECTS TRAFFIC VOLUMES
PM PEAK HOUR



NOTE: – PM Peak hour volumes are shown at the intersections

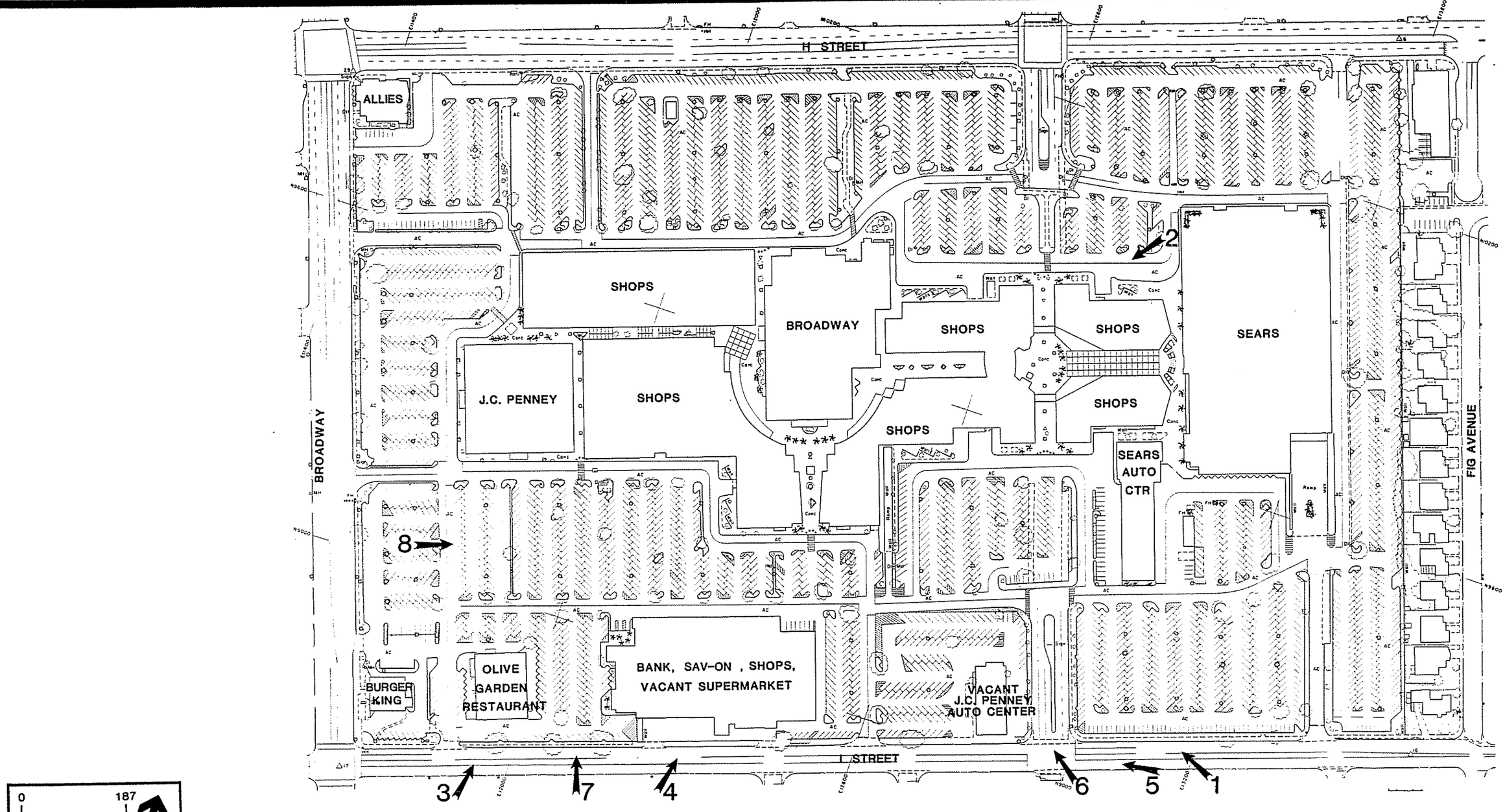
NO SCALE

LINSCOTT, LAW & GREENSPAN

10

EXISTING + GROWTH + PROJECT + RELATED PROJECTS PM PEAK HOUR

CHULA VISTA MALL EXPANSION



NOTE: NUMBERS BY ARROWS CORRESPOND TO PHOTOGRAPH NUMBERS

FIGURE 5. PHOTO LOCATION MAP

TRAFFIC IMPACT ANALYSIS

The traffic volumes from the traffic assignment were analyzed based on the following assumptions:

1) The project will expand the Mall with a net addition of 75,000 square feet of retail uses.

2) The analysis includes the existing, existing + growth + project and existing + growth project + related projects time frames.

3) The completion of the project is anticipated to be in 1994. Therefore, this year was used as the study year for the analysis.

4) The PM peak hour was used for analysis purposes.

5) The traffic generation factor was based on the SANDAG rate for super regional shopping centers.

6) An annual three percent growth factor was applied to the existing volumes before the addition of the project and the related projects volumes to reflect the traffic volumes anticipated at the time the project is completed.

7) The traffic distribution was based on a Select Zone Assignment prepare by Willdan Associates.

8) The Intersection Capacity Utilization (ICU) method was used to determine the traffic impacts at the key intersections.

9) Two related projects were analyzed at the request of the City.

Preliminary analysis of the expected traffic from the proposed expansion indicated that the following eleven key intersections should be analyzed for capacity impacts during the PM peak hour:

- H Street/I-5 southbound ramps
- H Street/I-5 northbound ramps
- H Street/Broadway
- H Street/5th Avenue
- H Street/4th Avenue
- I Street/Broadway
- I Street/5th Avenue
- I Street/5th Avenue
- J Street/I-5 southbound ramps
- J Street/I-5 northbound ramps
- J Street/Broadway

These intersections were analyzed for the existing, existing + growth + project and existing + growth + project + related projects conditions.

The intersections were analyzed using the ICU method. The ICU procedure assumes the traffic flow characteristics of a signalized intersection and computes the Level of Service (LOS) for the total intersection based upon a summation of volume to capacity (V/C) ratios for key conflicting movements. The ICU numerical value represents the percent of the signal green time, and thus capacity, required by existing and future traffic. The detailed calculations with the ICU analysis are presented in **Appendix B. Table 3** shows a summary of the signalized intersection operations during the PM peak hour.

The San Diego trolley runs parallel to I-5, just east of the freeway. The capacity of the intersections near the trolley tracks is reduced due to traffic stoppages as the trolley passes. This capacity reduction has not been incorporated into the intersection analysis. The actual ICU values will be somewhat higher than those calculated at the H Street/I-5 northbound ramps and the J Street/I-5 northbound ramps intersections.

THRESHOLD STANDARDS

The following three items are the "threshold standards" from the City of Chula Vista Growth Management Plan, Traffic Element, dated November 17, 1987.

1) City-wide: Maintain LOS C or better at all intersections, with the exception that LOS D may occur at signalized intersections for a period not to exceed a total of two hours per day.

2) West of I-805: Those signalized intersections which do not meet Standard #1 above, may continue to operate at their current (1987) LOS, but shall not worsen.

3) City-wide: No intersection shall operate at LOS F as measured for the average weekday peak hour.

These standards will be checked for conformance in regard to the intersection capacity analysis.

TABLE 3

SIGNALIZED INTERSECTION OPERATIONS
PM PEAK HOUR

INTERSECTION	EXISTING		EXISTING + GROWTH+PROJECT		EXISTING + GROWTH+PROJECT + RELATED PROJECTS	
	ICU	LOS	ICU	LOS	ICU	LOS
H Street/ I-5 SB ramps	0.60	A/B	0.65	B	0.65	B
H Street/ I-5 NB ramps	0.51	A	0.55	A	0.56	A
H Street/ Broadway	0.67	B	0.73	C	0.75	C
H Street/ 5th Avenue	0.56	A	0.60	A/B	0.62	B
H Street/ 4th Avenue	0.70	B/C	0.77	C	0.77	C
I Street/ Broadway	0.62	B	0.73	C	0.73	C
I Street/ 5th Avenue	0.44	A	0.48	A	0.48	A
I Street/ 4th Avenue	0.63	B	0.67	B	0.68	B
J Street/ I-5 SB Ramps	0.60	A/B	0.66	B	0.66	B
J Street/ I-5 NB Ramps	0.47	A	0.50	A	0.50	A
J Street/ Broadway	0.61	A/B	0.67	B	0.68	B

EXISTING OPERATIONS

Table 3 shows that all of the key intersections are calculated to be currently operating at LOS B or better with one exception. The H Street/4th Avenue intersection is calculated to be operating at the LOS B/C threshold. Thus, full conformance with the adopted City threshold standards is achieved for existing conditions.

EXISTING + GROWTH + PROJECT OPERATIONS

Table 3 shows that the addition of ambient traffic growth and the project traffic changes the LOS at several of the key intersections, however, all of the key intersections are calculated to continue to operate at LOS C or better in the existing + growth + project condition. Full conformance with the adopted City threshold standards is achieved under this condition. In general, most of the change in the ICU values is due to the compounded 9.27 percent expansion in ambient growth with a lesser contribution from project traffic. The project has the largest affect on the intersection of I Street/Broadway, followed by H Street/4th Avenue, H Street/Broadway, J Street/I-5 southbound ramps and J Street/Broadway. The project is calculated to have measurable volumes in the immediate area but not significant traffic impacts at the key intersections.

EXISTING + GROWTH + PROJECT + RELATED PROJECTS OPERATIONS

Table 3 shows that the addition of the related projects traffic does not change the Level of Service at any of the key intersections (other than a threshold crossing at the H Street/5th Avenue intersection). Table 3 also shows that all of the key intersections are calculated to continue to operate at LOS C or better in the existing + growth + project + related projects condition. Thus, full conformance with the adopted City threshold standards is achieved under this condition. The related projects are calculated to have a measurable but not significant traffic impact at the key intersections.

BUILDOUT OPERATIONS

According to the City of Chula Vista, the forecast allows for 50,000 trip-ends to be generated by the shopping center. Even with the expansion of the Mall, the calculations show that the shopping center will generate much less than 50,000 trip-ends. However, to provide a "worst case" analysis, it is assumed that the expansion of the Mall is not included in the forecast and

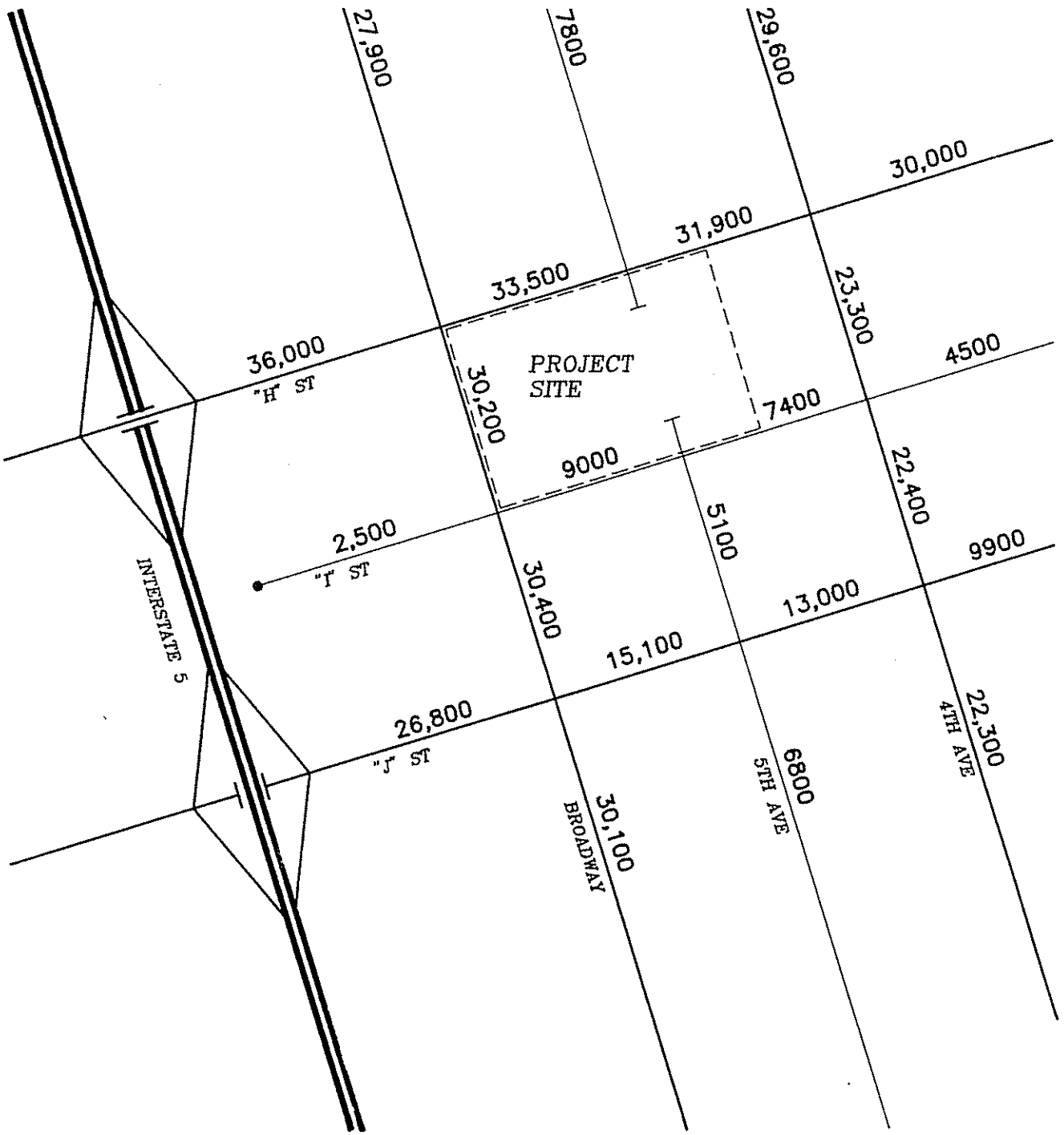
the volumes due to the expansion will be added to the buildout volumes.

Exhibit 11 shows the buildout daily traffic volumes on the street segments "before the expansion". **Table 4** shows the daily volumes before and after the project expansion. In general, H Street (between I-5 and 3rd Avenue), I Street, J Street and 5th Avenue are calculated to operate "better than LOS C" after the project. Broadway and 4th Avenue are calculated to operate at about LOS C. 4th Avenue north of H Street and H Street between 3rd Avenue and Hilltop Drive are calculated to operate "worse than LOS C". The table shows that the expansion of the shopping center adds only a minimal amount of daily traffic to the adjacent street system and does not change the V/C (volume to capacity) ratios by more than 0.04 on any of the street segments, with one exception. The V/C ratio on I Street east of Broadway increases from 0.75 to 0.85 but remains well within LOS C. The buildout impacts of the project are calculated to be measurable but not significant.

The section of H Street between 3rd Avenue and Hilltop Drive is classified as a 4-lane Major. Table 4 shows that this section of H Street is anticipated to have capacity problems in the buildout condition. The expansion of the shopping center is calculated to add traffic to what is already expected to be an adverse condition. The expansion of the shopping center is calculated to account for about 1% of the buildout traffic on H Street between 3rd Avenue and Hilltop Drive, under this worst case analysis.

RESIDENTIAL IMPACTS

There is some concern regarding the traffic impacts on the residential areas south of the shopping center. The Select Zone Assignment estimated that only about 1% of the traffic due to the expansion of the Mall will utilize 5th Avenue from the south to access the Mall. Traffic from the south is expected to primarily utilize Broadway to access the shopping center. The additional traffic generated by the Mall expansion is expected to be minimal in the residential areas located immediately south of the Mall and should not have a significant impact in those areas. The residential streets do not offer a short cut to shoppers living outside of this area, principally due to the discontinuity of the streets and off-sets in streets like Cedar Avenue.



NOTE: – Buildout traffic volumes obtained from the City of Chula Vista

NO SCALE

11

BUILDOUT TRAFFIC VOLUMES ADT's

LINSCOTT, LAW & GREENSPAN

CHULA VISTA MALL EXPANSION

TABLE 4

BUILDOUT OPERATIONS

STREET SEGMENT	DESIGN ADT (LOS C)	BUILDOUT		BUILDOUT + PROJECT	
		ADT	V/C	ADT	V/C
H Street					
e/o I-5	40,000	36,000	0.90	36,390	0.91
e/o Broadway	40,000	33,500	0.84	33,720	0.84
e/o 5th Avenue	40,000	31,900	0.80	32,300	0.81
e/o 4th Avenue	40,000	30,000	0.75	30,480	0.76
e/o 3rd Avenue	30,000	35,500	1.18	35,920	1.20
e/o 2nd Avenue	30,000	37,200	1.24	37,560	1.25
e/o 1st Avenuue	30,000	38,600	1.29	38,930	1.30
I Street					
e/o Broadway	12,000	9,000	0.75	10,140	0.85
e/o 5th Avenue	12,000	7,400	0.62	7,750	0.65
e/o 4th Avenue	12,000	4,500	0.38	4,590	0.38
J Street					
e/o I-5	30,000	26,800	0.89	27,040	0.90
e/o Broadway	22,000	15,100	0.69	15,160	0.69
e/o 5th Avenue	22,000	13,000	0.55	13,000	0.55
e/o 4th Avenue	22,000	9,900	0.45	9,900	0.45
Broadway					
n/o H Street	30,000	27,900	0.93	28,440	0.95
n/o I Street	30,000	30,200	1.01	30,950	1.03
n/o J Street	30,000	30,400	1.01	31,390	1.05
s/o J Street	30,000	30,100	1.01	30,790	1.03
5th Avenue					
n/o H Street	12,000	7,800	0.65	7,890	0.66
n/o J Street	12,000	5,100	0.43	5,130	0.43
s/o J Street	12,000	6,800	0.57	6,800	0.57
4th Avenue					
n/o H Street	22,000	29,600	1.35	29,750	1.35
n/o I Street	22,000	23,300	1.06	23,560	1.07
n/o J Street	22,000	22,400	1.02	22,430	1.02
s/o J Street	22,000	22,300	1.01	22,300	1.01

LEGEND

V/C	LOS
< 1.00	better than LOS C
> 1.00	worse than LOS C

PARKING SUPPLY

The project proposes to construct a 2-story parking structure for approximately 900 cars. The Chula Vista parking standards require 5 parking spaces per 1,000 square feet of retail space. The project proposes a 75,000 square foot net expansion (requiring 375 parking spaces). According to the Chula Vista Shopping Center management, the existing parking areas are never full, especially the southern areas. Therefore, it is anticipated that the existing parking supply is enough to offset that displaced during the construction of the Mall expansion. The parking supply should be adequate after the expansion of the shopping center and the construction of the parking structure.

ALTERNATIVES ANALYSIS

The California Environmental Quality Act (CEQA) requires discussion of reasonable project alternatives. The project alternatives qualitatively analyzed are:

A) **The no project alternative** would leave the site in its present condition with no expansion. There would be no new trips generated and, therefore, no traffic impacts with this alternative.

B) **The deletion of the proposed 36,000 square foot cinema** from the proposed expansion would result in a reduction of about 1,440 ADT from the proposed expansion generation (3,000 ADT). The traffic impacts would be slightly less, especially during the PM peak hour.

C) **The replacement of the Mervyn's department store with equal sized smaller retail shops** will result in about the same "book" traffic generation. Professionally, we would expect a small decrease in traffic generation since the "majors" are considered to be the major attractors in a shopping center. The traffic impacts of this alternative would be expected to be slightly less.

D) **The expansion of the Plaza Bonita by an identical 75,000 square feet** would have the same generation as the proposed project. The ADT's on Sweetwater Road and Plaza Bonita Road adjacent to Plaza Bonita are generally less than those on H Street and

Broadway adjacent to the Chula Vista Shopping Center. This indicates that the traffic impacts may be slightly less near Plaza Bonita. However, there are less access opportunities at Plaza Bonita which concentrates traffic compared to the well developed grid system adjacent to the Chula Vista Shopping Center. Therefore, the impacts at Plaza Bonita are expected to be similar to those at the Chula Vista Mall.

E) **The replacement of land uses in Otay Ranch with Mall expansion.** The Eastern Urban Center is a proposed 300 acre site located at the proposed SR 125/East Orange Avenue interchange. The replacement of some of the land uses in the proposed Eastern Urban Center in Otay Ranch with the proposed Mall expansion would have less traffic impacts since it would be a replacement and not an addition of commercial land uses. The degree of the traffic impact would also depend on the type of land uses replaced. At this time, it has not been determined exactly what type of land uses will be constructed. Since this area is currently undeveloped, it will be possible to initially construct the traffic network to accommodate any expected traffic demand.

F) **The replacement of land uses in Eastlake with Mall expansion --** The Eastlake Village Center is a proposed mixed use development consisting of residential, office and retail uses. It will be located east of the proposed SR 125 at Otay Lakes Road. The replacement of some of the land uses with the proposed Mall expansion would have less traffic impacts since it would be a replacement and not an addition. The traffic impact would also depend on the type of land uses replaced, which are unknown at this time. Since this area is currently undeveloped, it will be possible to initially construct the traffic network to accommodate any expected traffic demand.

SITE ACCESS AND ON-SITE CIRCULATION

The shopping center currently provides good access and on-site circulation. The driveways are well spaced and the main access driveways are adequately throated. The bay widths are about 55 feet wide with 60 degree parking, which provides good vehicle maneuverability. The main aisles are about 30 feet wide and provide for good patron and emergency vehicle flow. It would be desirable to position the second driveway on I Street east of Broadway

directly across from Cedar Avenue. This driveway may be utilized more frequently than under existing conditions due to its position near Mervyn's Department Store. This driveway should be throated to a length of about 120 feet to prevent conflicts directly at the driveway entrance. This will require a reconfiguration of the parking area directly south of the proposed Mervyn's.

The circulation of the reconfigured parking areas on the south side of the site are generally good. The continuation of the loop road on the perimeter of the shopping center buildings is maintained despite the "jutting out" of Mervyn's. This will have a positive affect, since it will serve to decrease the speeds on the loop road but it could have a negative affect on emergency response. The reconfigured parking areas eliminate the parking maneuvers that are currently present directly on the north-south portion of the loop road ("parking structure aisle") directly south of J.C. Penny's. The alternating one-way directional traffic flow of the aisles is good. It would be desirable to replace the 90 degree parking with 60 degree angled parking along all one-way aisles to discourage wrong way movements. It would also be desirable to provide a sidewalk along the south side of Mervyn's to avoid pedestrian conflicts with vehicles.

The parking structure design should be changed to move the "up and down" ramps (sloping floor in the same plane) to the middle two bays. The current design results in vehicle conflicts at the ramp terminus and an overlap in circulation. The up ramp should be the southerly of the two ramps, providing a clockwise flow with the most southerly bay. The down ramp will then provide a clockwise flow with the most northerly bay. Additionally, the five parking bays on the west side of the parking structure aisle should be reconfigured to complement the four bays in the parking structure area to prevent head on movements and confusion. The parking structure should be designed to delete the breaks in the parking rows at the end of the ramps to eliminate sharp U-turns. The ramps could also be lengthened to about 300 feet long to reduce the grade from an acceptable 4.5 percent to a more desirable 3 percent. The suggested modifications are not represented on the Site Plan (Exhibit 3).

CONCLUSIONS

The project is calculated to have measurable but not significant traffic impacts. Measures are not needed to mitigate project traffic impacts. The calculations show that capacity problems are anticipated on H Street between 3rd Avenue and Hilltop Drive in the buildout condition, both with and without the proposed expansion. The shopping center currently provides good access and on-site circulation. A few changes to the post-expansion site plan are recommended including specific modification to the proposed parking structure. Adequate access and on-site circulation should be provided during the expansion construction. Traffic impacts on the surrounding residential areas are expected to be minimal. The related projects are calculated to have measurable but not significant traffic impacts.

APPENDIX A

Manual Count Sheets

LINSCOTT, LAW & GREENSPAN 8885 RIO SAN DIEGO DRIVE, SUITE 247 SAN DIEGO, CA 92108 (619)299-3090

* * * MANUAL COUNT SUMMARY * * *

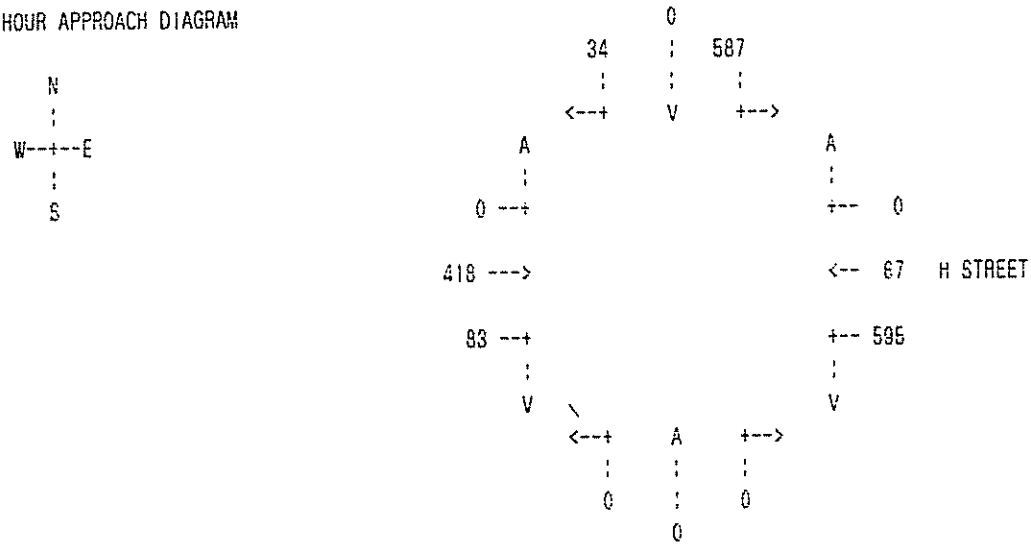
Prepared for : CHULA VISTA MALL EXPANSION
INTERSECTION : I-5 SB RAMPS AND H STREET
TCS FILE NAME: A:439P1.MCT

JOB#: 3-910439
DATE: 5/7/91
DAY : TUESDAY
TIME: 4:00PM - 6:00PM

ABNORMAL CONDITIONS:

	I-5 SB RAMPS									H STREET									TOTAL VOLUMES	
	NORTHBOUND			SOUTHBOUND			1/4 HR TOTALS			EASTBOUND			WESTBOUND			1/4 HR TOTALS				
TIME BEGIN	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	NBD	SBD	BOTH	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	EBD	WBD	BOTH	15 MIN	HOURLY
*4:00	-	-	-	161	-	11	0	172	172	-	161	31	127	22	-	192	149	341	513	1784
*4:15	-	-	-	131	-	9	0	140	140	-	111	15	153	19	-	126	172	298	438	1631
*4:30	-	-	-	168	-	8	0	176	176	-	75	20	142	15	-	95	157	252	428	1557
*4:45	-	-	-	127	-	6	0	133	133	-	71	17	173	11	-	88	184	272	405	1425
5:00	-	-	-	149	-	5	0	154	154	-	51	25	120	10	-	76	130	206	360	1286
5:15	-	-	-	151	-	3	0	154	154	-	38	11	135	26	-	49	161	210	364	
5:30	-	-	-	100	-	8	0	108	108	-	25	11	138	14	-	36	152	188	296	
5:45	-	-	-	96	-	5	0	101	101	-	29	10	115	11	-	39	126	165	266	
* PEAK HOUR from 4:00 PM TO 5:00 PM																				
	0	0	0	587	0	34	0	621	621	0	416	83	595	67	0	501	662	1163	1784	1784

PEAK HOUR APPROACH DIAGRAM



LINSCOTT, LAW & GREENSPAN 8885 RIO SAN DIEGO DRIVE, SUITE 247 SAN DIEGO, CA 92108 (619)299-3090

* * * MANUAL COUNT SUMMARY * * *

Prepared for : CHULA VISTA MALL EXPANSION
INTERSECTION : I-5 NB RAMPS AND H STREET
TCS FILE NAME: A:439P2.MCT

JOB#: 3-910439
DATE: 5/7/91
DAY : TUESDAY
TIME: 4:00PM - 6:00PM

ABNORMAL CONDITIONS:

	I-5 NB RAMPS									H STREET									TOTAL VOLUMES	
	NORTHBOUND			SOUTHBOUND			1/4 HR TOTALS			EASTBOUND			WESTBOUND			1/4 HR TOTALS				
TIME BEGIN	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	NBD	SBD	BOTH	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	EBD	WBD	BOTH	15 MIN	HOURLY
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*4:30	0	-	114	-	-	-	114	0	114	48	177	-	-	144	102	225	246	471	585	2289
*4:45	6	-	128	-	-	-	134	0	134	36	144	-	-	143	98	182	242	424	558	2248
5:00	2	-	120	-	-	-	122	0	122	43	138	-	-	167	114	181	281	462	584	2099
5:15	11	-	111	-	-	-	122	0	122	22	159	-	-	155	104	181	259	440	562	
5:30	8	-	139	-	-	-	147	0	147	18	136	-	-	147	96	154	243	397	544	
5:45	6	-	101	-	-	-	106	0	106	9	114	-	-	113	67	123	180	303	409	
* PEAK HOUR from 4:00 PM TO 5:00 PM																				
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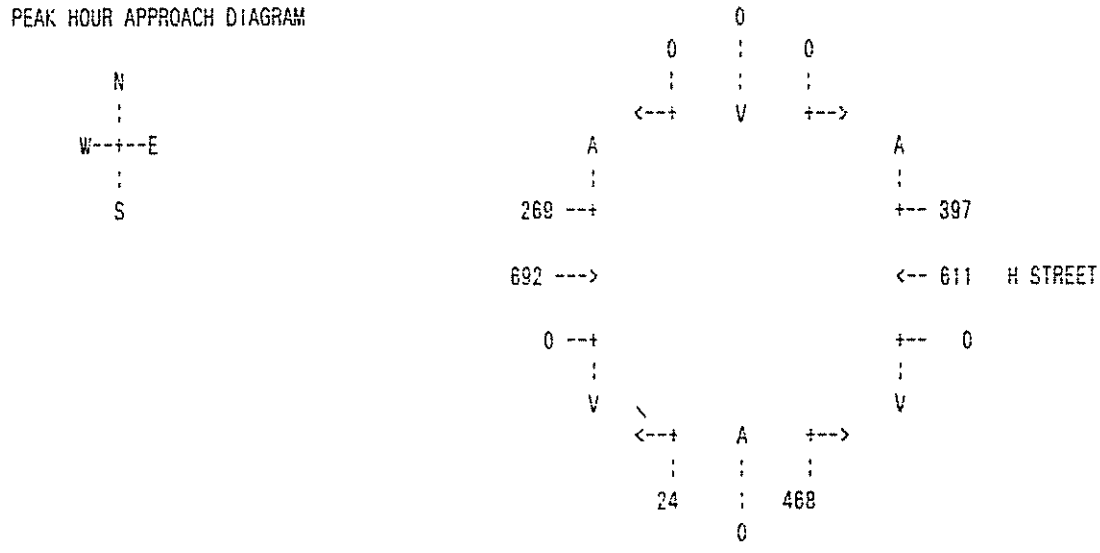
PEAK HOUR APPROACH DIAGRAM



LINSCOTT, LAW & GREENSPAN 8885 RIO SAN DIEGO DRIVE, SUITE 247 SAN DIEGO, CA 92108 (619)299-3090

* * * MANUAL COUNT SUMMARY * * *

Prepared for : CHULA VISTA MALL EXPANSION
INTERSECTION : BROADWAY AND H STREET
TCS FILE NAME: A:439P3.MCT

JOB#: 3-910439
DATE: 5/7/91
DAY : TUESDAY
TIME: 4:00PM - 6:00PM

ABNORMAL CONDITIONS:

	BROADWAY									H STREET									TOTAL VOLUMES	
	NORTHBOUND			SOUTHBOUND			1/4 HR TOTALS			EASTBOUND			WESTBOUND			1/4 HR TOTALS				
TIME BEGIN	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	NBD	SBD	BOTH	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	EBD	WBD	BOTH	15 MIN	HOURLY
*4:00	62	135	35	31	138	45	232	214	446	72	191	49	65	162	40	312	267	579	1025	3953
*4:15	89	120	57	47	188	65	266	300	566	48	182	48	66	130	33	278	229	507	1073	3698
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*4:45	58	128	42	36	187	50	228	273	501	43	164	42	43	114	20	249	177	426	927	3266
5:00	53	93	36	21	134	37	182	192	374	37	131	51	49	114	14	219	177	396	770	3358
5:15	61	132	42	45	185	54	235	284	519	41	124	40	37	150	30	205	217	422	941	
5:30	21	45	22	32	172	47	88	251	339	10	51	17	44	143	24	78	211	289	628	
5:45	92	162	44	27	121	45	298	193	491	57	225	80	42	100	24	362	166	528	1019	
* PEAK HOUR from 4:00 PM TO 5:00 PM																				
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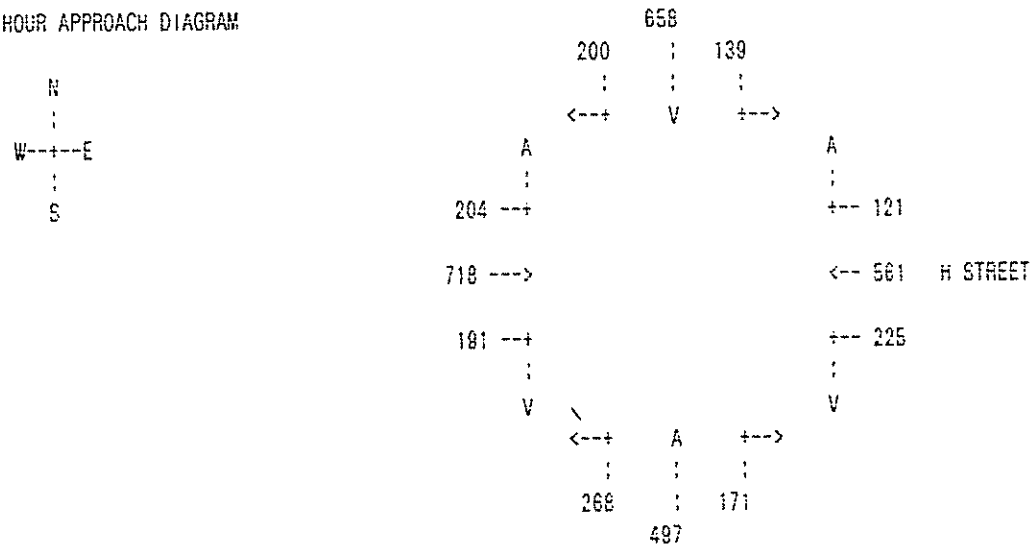
PEAK HOUR APPROACH DIAGRAM



LINSCOTT, LAW & GREENSPAN 8885 RIO SAN DIEGO DRIVE, SUITE 247 SAN DIEGO, CA 92108 (619)299-3090

* * * MANUAL COUNT SUMMARY * * *

Prepared for : CHULA VISTA MALL EXPANSION
INTERSECTION : 5TH AVE AND H STREET
TDS FILE NAME: A:435E4.IDT

JOB#: 3-910435
DATE: 3-7-91
DAY : TUESDAY
TIME: 4:00PM - 6:00PM

ABNORMAL CONDITIONS:

	5TH AVE									H STREET									TOTAL VOLUMES	
	NORTHBOUND			SOUTHBOUND			1/4 HR TOTALS			EASTBOUND			WESTBOUND			1/4 HR TOTALS				
TIME BEGIN	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	NBD	SBD	BOTH	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	EBD	WBD	BOTH	15 MIN	HOURLY
4:00	21	23	26	37	25	13	70	74	144	20	224	25	84	206	22	269	264	533	675	2391
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4:30	27	12	40	24	18	14	79	56	135	14	188	32	84	172	16	202	272	488	590	2235
4:45	14	17	22	25	17	6	53	48	101	16	197	25	89	143	19	240	231	441	542	2161
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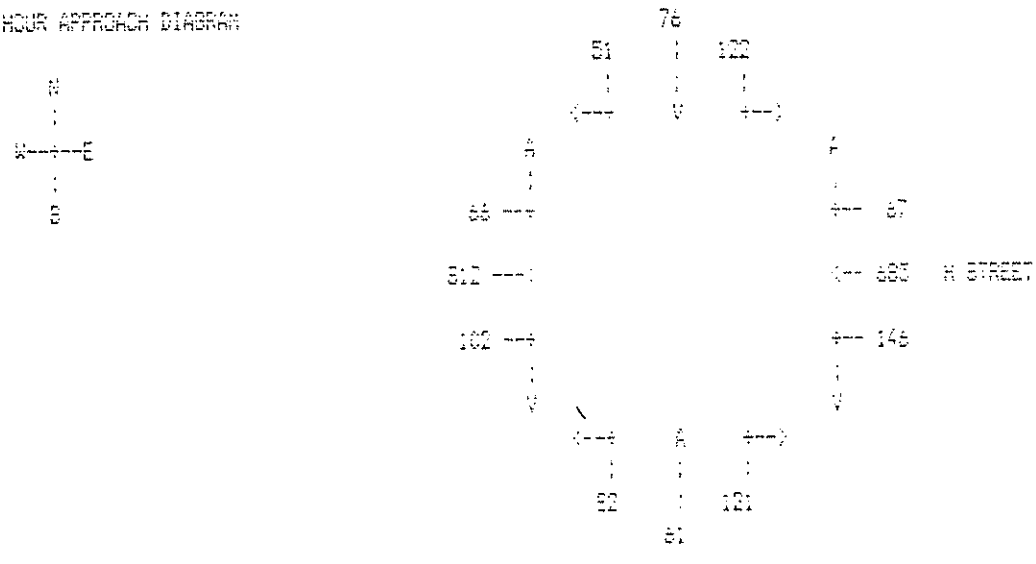
5:15	28	18	41	31	22	6	87	59	146	13	164	31	21	139	11	208	171	379	525	
5:30	17	16	32	33	18	16	65	67	132	14	156	27	35	142	8	197	185	384	516	
5:45	21	7	15	29	11	22	43	62	105	9	121	14	24	103	12	144	139	283	388	
* PEAK HOUR from 4:00 PM TO 5:00 PM																				
	82	61	121	122	76	51	284	249	513	66	812	102	146	685	67	980	898	1878	2391	2391

PEAK HOUR APPROACH DIAGRAM



LINSCOTT, LAW & GREENSPAN   2525 RIO SAN DIEGO DRIVE, SUITE 247   SAN DIEGO, CA 92108   (619)299-3090

* * * MANUAL COUNT SUMMARY * * *

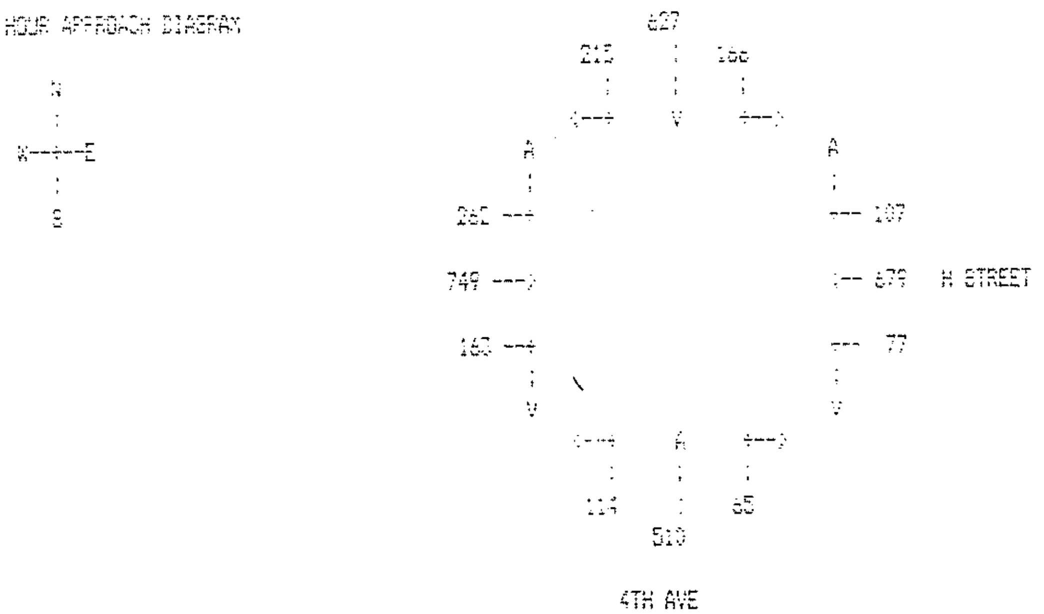
Prepared for : CHULA VISTA MALL EXPANSION
INTERSECTION : 4TH AVE AND H STREET
TIE FILE NAME: [illegible]

JOB#: C-910439
DATE: 5/7/91
DAY : TUESDAY
TIME: 4:00PM - 6:00PM

ABNORMAL CONDITIONS:

	4TH AVE									H STREET									TOTAL VOLUMES	
	NORTHBOUND			SOUTHBOUND			1/4 HR TOTALS			EASTBOUND			WESTBOUND			1/4 HR TOTALS				
TIME BEGIN	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	NBD	SBD	BOTH	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	EBD	WBD	BOTH	15 MIN	HOURLY
*4:00	34	145	16	32	164	78	195	274	469	103	176	54	22	208	32	333	262	595	1064	3734
4:15	20	114	14	57	128	30	148	215	363	49	191	23	14	139	25	263	178	441	804	3555
4:30	23	132	14	36	146	52	169	234	403	58	190	48	19	167	32	296	218	514	917	3502
4:45	37	119	21	41	189	55	177	285	462	52	192	38	22	165	18	282	205	487	949	3488
5:00	27	126	10	23	165	48	163	236	399	45	205	38	20	157	21	288	198	486	885	3375
5:15	24	80	8	41	177	30	112	248	360	23	156	36	16	137	23	215	176	391	751	
5:30	25	127	15	26	145	48	167	219	386	60	217	45	22	150	23	322	195	517	903	
5:45	22	109	14	28	183	38	145	249	394	39	167	41	13	162	20	247	195	442	836	
* PEAK HOUR from 4:00 PM TO 5:00 PM	114	510	65	166	627	215	689	1008	1697	262	749	163	77	679	107	1174	863	2037	3734	3734

PEAK HOUR APPROACH DIAGRAM



LINSCOTT, LAW & GREENSPAN   5255 RIO SAN DIEGO DRIVE, SUITE 247   SAN DIEGO, CA 92108   (619)299-3090

* * * MANUAL COUNT SUMMARY * * *

Prepared for : CHULA VISTA MALL EXPANSION
INTERSECTION : BROADWAY AND I STREET
TCS FILE NAME: B:ADRLR.MOT

JOB#: 2-910409
DATE: 5/8/91
DAY : WEDNESDAY
TIME: 4:00PM - 6:00PM

ABNORMAL CONDITIONS:

	BROADWAY									I STREET									TOTAL VOLUMES	
	NORTHBOUND			SOUTHBOUND			1/4 HR TOTALS			EASTBOUND			WESTBOUND			1/4 HR TOTALS				
TIME BEGIN	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	NBD	SBD	BOTH	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	EBD	WBD	BOTH	15 MIN	HOURLY
4:00	1	181	22	10	200	8	182	259	441	2	27	4	71	14	35	39	120	159	600	2372
4:15	1	209	32	19	210	5	252	241	493	6	41	4	45	22	20	51	87	138	631	2305
*4:30	1	181	22	28	214	6	188	248	436	7	25	7	51	18	34	39	103	142	578	2270
*4:45	3	172	23	27	204	5	198	232	430	3	24	1	50	21	34	28	105	133	563	2325
*5:00	2	154	27	25	200	6	183	231	414	3	20	2	55	21	18	25	94	119	533	2336
*5:15	2	226	29	25	233	11	259	269	528	9	36	5	54	35	29	50	118	171	699	
5:30	3	145	10	21	201	6	158	228	386	4	24	2	52	27	35	30	114	144	530	
5:45	1	181	39	23	223	3	221	249	470	9	13	4	34	20	24	26	98	124	594	
* PEAK HOUR from 4:30 PM TO 5:30 PM	10	713	105	97	855	28	828	980	1808	22	105	18	210	95	115	145	420	565	2373	2373

PEAK HOUR APPROACH DIAGRAM

```
  N
  :
W--+--E
  :
  S
                               855
                        28      :      97
                         :      :      :
                       <--+     V     +-->

                  A                         A
                  :                         :
            22 --+                          +-- 115

           105 --->                         <--  95   I STREET

            18 --+                          +-- 210
                  :                         :
                  V                         V

                       <--+     A     +-->
                          :     :     :
                         10     :    105
                               713

                            BROADWAY
```

LINSCOTT, LAW & GREENSPAN 9885 RIO SAN DIEGO DRIVE, SUITE 247 SAN DIEGO, CA 92108 (619)299-3090

* * * MANUAL COUNT SUMMARY * * *

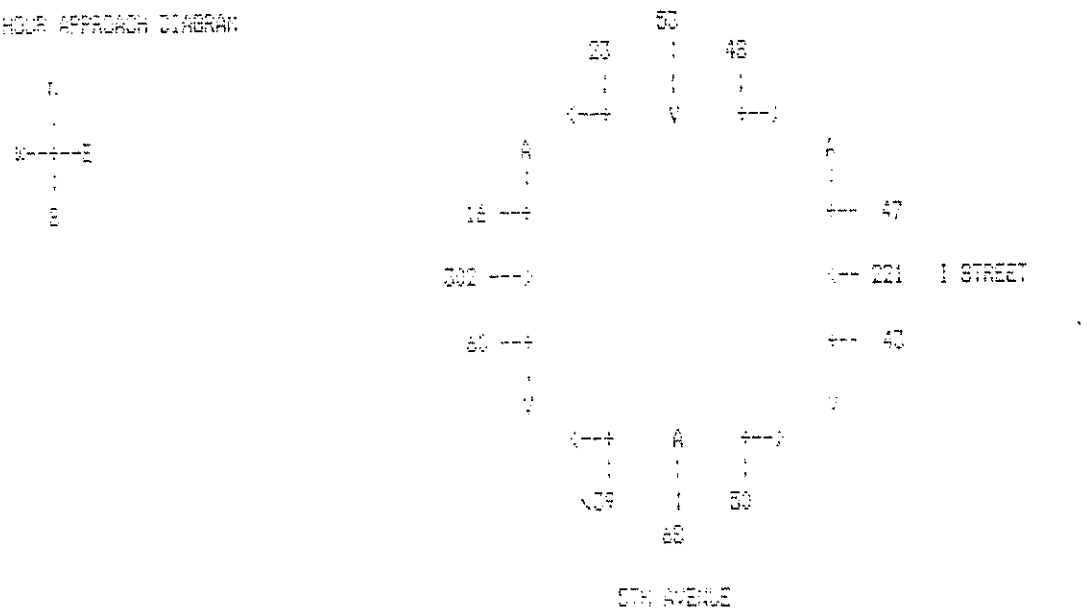
Prepared for : CHULA VISTA MALL EXPANSION
INTERSECTION : 5TH AVENUE AND I STREET
TCS FILE NAME: D:\5TH5B.XCT

JOB#: C-910437
DATE: 5/8/91
DAY : WEDNESDAY
TIME: 4:30PM - 6:00PM

ABNORMAL CONDITIONS:

	5TH AVENUE									I STREET									TOTAL VOLUMES	
	NORTHBOUND			SOUTHBOUND			1/4 HR TOTALS			EASTBOUND			WESTBOUND			1/4 HR TOTALS				
TIME BEGIN	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	NBD	SBD	BOTH	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	EBD	WBD	BOTH	15 MIN	HOURLY
4:00	17	23	14	19	23	6	60	48	98	1	85	15	10	50	11	101	71	172	270	970
4:15	7	16	11	15	9	9	34	28	62	7	74	20	11	50	13	101	74	175	237	927
4:30	11	11	10	7	10	7	32	24	56	3	62	12	12	76	11	77	99	176	232	926
4:45	7	18	12	7	12	5	37	24	61	5	81	13	10	45	12	99	67	166	227	867
5:00	5	10	11	5	13	6	32	24	56	5	83	17	16	61	15	77	92	172	227	872
5:15	9	9	7	11	12	6	25	29	54	4	93	10	8	58	17	97	83	180	234	
5:30	11	26	15	17	9	6	52	32	84	6	77	12	5	55	18	95	78	173	257	
5:45	6	15	6	5	3	4	29	12	41	6	83	14	5	48	11	72	64	137	178	
* PEAK HOUR From 4:00 PM TO 5:00 PM																				
	39	68	50	48	53	23	157	124	281	16	302	60	43	221	47	378	311	689	970	970

PEAK HOUR APPROACH DIAGRAM:



LINSCOTT, LAW & GREENSPAN 8885 RIO SAN DIEGO DRIVE, SUITE 247 SAN DIEGO, CA 92108 (619)299-3090

* * * MANUAL COUNT SUMMARY * * *

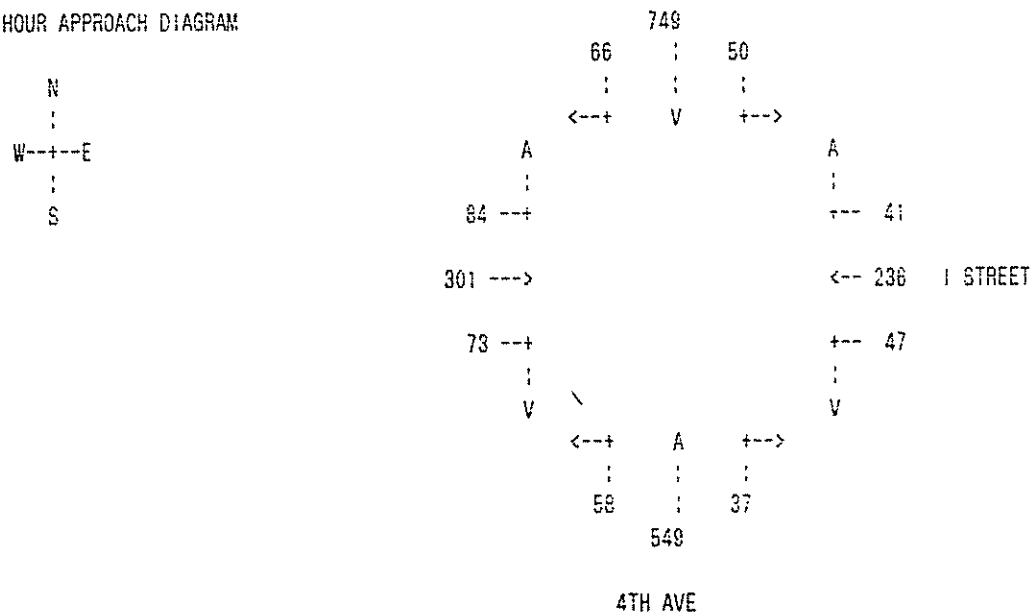
Prepared for : CHULA VISTA MALL EXPANSION
INTERSECTION : 4TH AVE AND I STREET
TCS FILE NAME: A:439P6.MCT

JOB#: 3-910439
DATE: 5/7/91
DAY : TUESDAY
TIME: 4:00PM - 6:00PM

ABNORMAL CONDITIONS:

	4TH AVE									I STREET									TOTAL VOLUMES	
	NORTHBOUND			SOUTHBOUND			1/4 HR TOTALS			EASTBOUND			WESTBOUND			1/4 HR TOTALS				
TIME BEGIN	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	NBD	SBD	BOTH	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	EBD	WBD	BOTH	15 MIN	HOURLY
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1667
*4:15	9	125	9	14	154	15	143	183	326	20	65	20	12	37	6	105	55	160	486	2281
*4:30	13	156	13	14	201	16	182	231	413	18	60	17	12	67	14	115	93	208	621	2390
*4:45	15	128	6	11	187	18	149	216	365	24	71	22	11	58	9	117	78	195	560	2216
*5:00	21	140	9	11	207	17	170	235	405	22	85	14	12	74	12	121	98	219	624	2060
5:15	12	120	9	14	149	9	141	172	313	17	65	18	9	57	6	100	72	172	485	
5:30	15	145	7	22	174	12	167	208	375	20	68	22	9	43	10	110	62	172	547	
5:45	7	112	3	7	143	19	122	169	291	9	68	12	1	35	8	89	44	133	424	
* PEAK HOUR from 4:15 PM TO 5:15 PM																				
	58	549	37	50	749	66	644	865	1509	84	301	73	47	236	41	458	324	782	2291	2291

PEAK HOUR APPROACH DIAGRAM



LINSCOTT, LAW & GREENSPAN   8885 RIO SAN DIEGO DRIVE, SUITE 247   SAN DIEGO, CA 92108   (619)299-3090

* * * MANUAL COUNT SUMMARY * * *

Prepared for : CHULA VISTA MALL EXPANSION
INTERSECTION : I-5 SB RAMPS AND J STREET
TDS FILE NAME: B:479p11.XCT

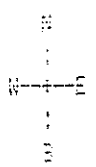
JOB#: I-910479
DATE: 3/6/91
DAY : WEDNESDAY
TIME: 4:00PM - 6:00PM

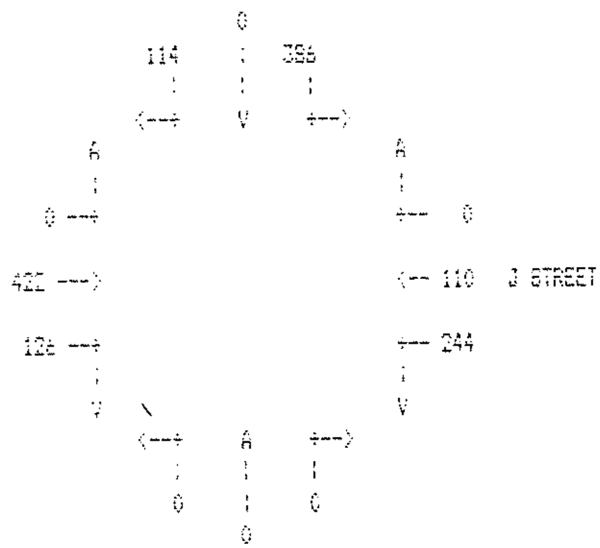
ABNORMAL CONDITIONS:

TIME BEGIN	I-5 SB RAMPS NORTHBOUND LEFT	NORTHBOUND THRU	NORTHBOUND RIGHT	SOUTHBOUND LEFT	SOUTHBOUND THRU	SOUTHBOUND RIGHT	1/4 HR TOTALS NBD	SBD	BOTH	J STREET EASTBOUND LEFT	EASTBOUND THRU	EASTBOUND RIGHT	WESTBOUND LEFT	WESTBOUND THRU	WESTBOUND RIGHT	1/4 HR TOTALS EBD	WBD	BOTH	TOTAL VOLUMES 15 MIN	HOURLY
*4:00	-	-	-	103	-	28	0	131	131	-	165	42	71	32	-	207	103	310	441	1402
*4:15	-	-	-	101	-	23	0	124	124	-	113	36	43	25	-	149	68	217	341	1263
*4:30	-	-	-	69	-	29	0	98	98	-	77	25	(2)	21	-	102	23	125	223	1232
*4:45	-	-	-	113	-	34	0	147	147	-	67	23	128	32	-	90	160	250	397	1267
5:00	-	-	-	84	-	21	0	105	105	-	64	34	66	33	-	98	99	197	302	1089
5:15	-	-	-	117	-	27	0	144	144	-	46	14	72	34	-	60	106	166	310	
5:30	-	-	-	103	-	24	0	127	127	-	43	6	55	27	-	49	82	131	258	
5:45	-	-	-	79	-	17	0	96	96	-	43	8	52	20	-	51	72	123	219	
* PEAK HOUR from 4:00 PM TO 5:00 PM	0	0	0	386	0	114	0	500	500	0	422	126	244	110	0	548	354	902	1402	1402

◯ - within peak hour

PEAK HOUR APPROACH DIAGRAM





I-5 SB RAMPS

LINSCOTT, LAW & GREENSPAN 6885 RIO SAN DIEGO DRIVE, SUITE 247 SAN DIEGO, CA 92108 (619)299-3090

* * * MANUAL COUNT SUMMARY * * *

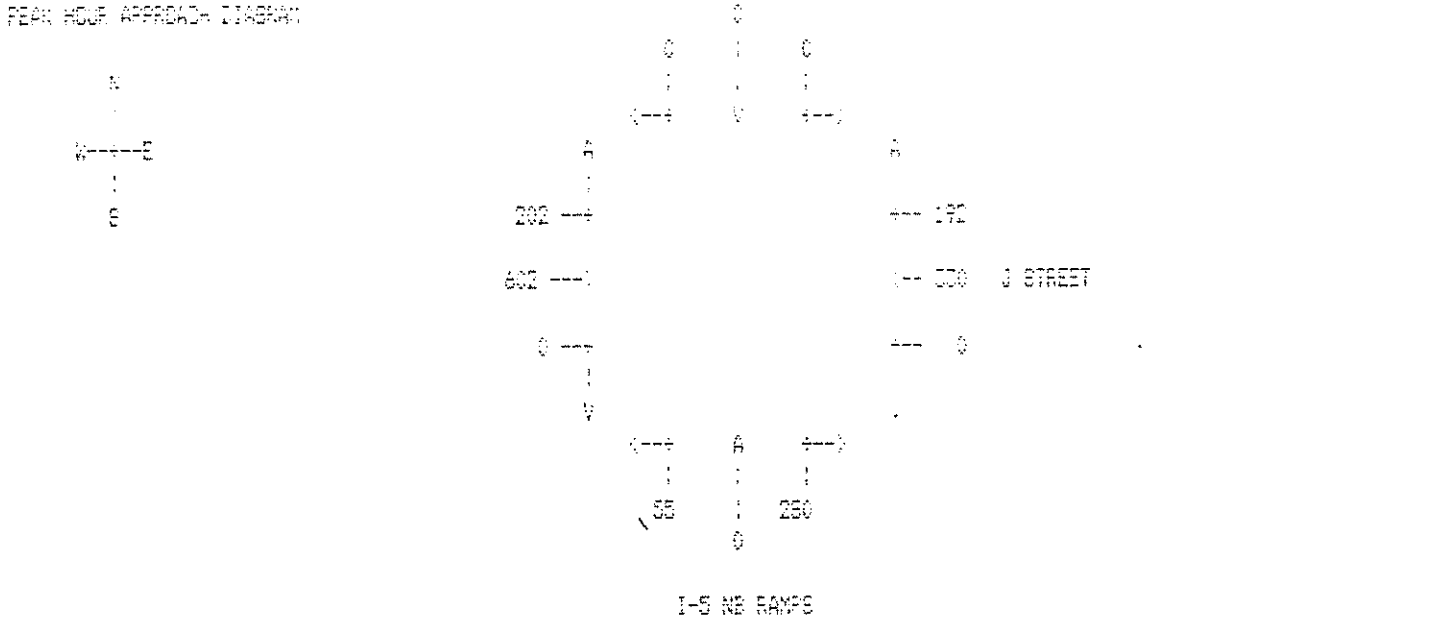
Prepared for : CHULA VISTA MALL EXPANSION
INTERSECTION : I-5 NB RAMPS AND J STREET
TCS FILE NAME: B:\09b10.MOT

JOB#: 3-910439
DATE: 5/8/91
DAY : WEDNESDAY
TIME: 4:00PM - 6:00PM

ABNORMAL CONDITIONS:

	I-5 NB RAMPS									J STREET									TOTAL VOLUMES	
	NORTHBOUND			SOUTHBOUND			1/4 HR TOTALS			EASTBOUND			WESTBOUND			1/4 HR TOTALS				
TIME BEGIN	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	NBD	SBD	BOTH	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	EBD	WBD	BOTH	15 MIN	HOURLY
4:00	9	-	70	-	-	-	79	0	79	69	166	-	-	81	69	235	147	402	481	1661
4:15	10	-	77	-	-	-	89	0	89	44	167	-	-	67	47	211	114	325	414	1578
4:30	10	-	67	-	-	-	75	0	75	55	117	-	-	51	41	172	122	294	369	1525
4:45	14	-	78	-	-	-	92	0	92	54	152	-	-	74	45	206	119	325	417	1520
5:00	7	-	100	-	-	-	107	0	107	28	121	-	-	97	48	149	145	294	356	1474
5:15	6	-	76	-	-	-	82	0	82	17	114	-	-	86	62	131	148	281	363	
5:30	11	-	70	-	-	-	81	0	81	28	141	-	-	73	47	169	120	291	374	
5:45	8	-	76	-	-	-	84	0	84	19	116	-	-	75	84	124	159	283	337	
* PEAK HOUR from 4:00 PM TO 5:00 PM																				
	55	0	280	0	0	0	335	0	335	202	602	0	0	332	192	804	522	1326	1661	1661

PEAK HOUR APPROACH DIAGRAM:



I-5 NB RAMPS

LINSCOTT, LAW & GREENSPAN   8885 RIO SAN DIEGO DRIVE, SUITE 247   SAN DIEGO, CA 92108   (619)299-3090

* * * MANUAL COUNT SUMMARY * * *

Prepared for : CHULA VISTA MALL EXPANSION
INTERSECTION : BROADWAY AND J STREET
TCI FILE NAME: B:437BJ.MCT

JOB#: 3-910439
DATE: 5/8/91
DAY : WEDNESDAY
TIME: 4:00PM - 6:00PM

ABNORMAL CONDITIONS:

TIME	BROADWAY									J STREET									TOTAL VOLUMES	
	NORTHBOUND			SOUTHBOUND			1/4 HR TOTALS			EASTBOUND			WESTBOUND			1/4 HR TOTALS				
BEGIN	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	NBD	SBD	BOTH	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	EBD	WBD	BOTH	15 MIN	HOURLY
4:00	21	188	9	13	264	26	218	303	521	33	125	47	16	45	10	205	71	276	797	2739
4:15	11	158	22	9	141	35	191	185	376	27	120	24	12	60	8	171	80	251	627	2630
4:30	14	151	12	14	197	22	177	233	410	20	86	27	14	72	14	133	100	233	643	2657
4:45	16	170	21	9	185	23	207	217	424	30	107	28	14	56	13	165	83	248	672	2723
5:00	26	140	17	11	187	22	183	220	403	33	119	26	20	73	14	178	107	285	688	2548
5:15	10	143	19	13	197	32	172	242	414	15	114	19	7	69	16	148	92	240	654	
5:30	19	187	11	23	217	23	217	263	480	19	111	25	18	48	8	155	74	229	709	
5:45	5	124	10	7	144	22	139	173	312	22	80	16	14	42	11	118	67	185	497	

* PEAK HOUR from 4:00 PM TO 5:00 PM

	NB LEFT	NB THRU	NB RIGHT	SB LEFT	SB THRU	SB RIGHT	NBD	SBD	BOTH	EB LEFT	EB THRU	EB RIGHT	WB LEFT	WB THRU	WB RIGHT	EBD	WBD	BOTH	15 MIN	HOURLY
	62	667	64	45	787	106	793	938	1731	110	438	126	56	233	45	674	334	1008	2739	2739

PEAK HOUR APPROACH DIAGRAM

```
                                  787
    N                     106      :      45
    :                       :      :      :
 W--+--E                 <--+      V      +-->
    :                  ^                        ^
    S                  :                        :
               110 ----+                        +--- 45

               438 --->                         <--- 233    J STREET

               126 ----+                        +--- 56
                       :                        :
                       V                        V
                         <--+      ^      +-->
                            :      :      :
                         \ 62      :      64
                                  667

                               BROADWAY
```

APPENDIX B

ICU Calculation Sheets

TABLE _____
VOLUME-CAPACITY ANALYSIS
H ST./I-5 SB RAMPS
PM

MOVEMENT	EXISTING CONDITIONS VOLUME	CAP	V/C RATIO	EXISTING + GROWTH + PROJECT ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	EXISTING + GROWTH + PROJECT + REL. PROJ. ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO
NBL	0	0	0.00	0	0	0	0.00	0	0	0	0.00
NBT	0	0	0.00 *	0	0	0	0.00 *	0	0	0	0.00 *
NBR	0	0	0.00	0	0	0	0.00	0	0	0	0.00
SBL	587	3000	0.20 *	72	659	3000	0.22 *	0	659	3000	0.22 *
SBT	0	0	0.00	0	0	0	0.00	0	0	0	0.00
SBR	34	3000	0.01	3	37	3000	0.01	0	37	3000	0.01
EBL	0	0	0.00	0	0	0	0.00	0	0	0	0.00
EBT	418	5100	0.10 *	39	457	5100	0.11 *	24	481	5100	0.11 *
EBR	83	0	0.00	8	91	0	0.00	9	100	0	0.00
WBL	595	3000	0.20 *	55	650	3000	0.22 *	20	670	3000	0.22 *
WBT	67	3400	0.02	6	73	3400	0.02	0	73	3400	0.02
WBR	0	0	0.00	0	0	0	0.00	0	0	0	0.00
CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10
ICU VALUE			0.60	ICU VALUE			0.65	ICU VALUE			0.65
LEVEL OF SERVICE= A				LEVEL OF SERVICE= B				LEVEL OF SERVICE= B			

A:439hsb5.ICU

TABLE _____
VOLUME-CAPACITY ANALYSIS
H ST./I-5NB RAMPS
PM

MOVEMENT	EXISTING CONDITIONS				EXISTING + GROWTH + PROJECT				EXISTING + GROWTH + PROJECT + REL. PROJ.			
	VOLUME	CAP	V/C RATIO		ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO
NBL	24	1500	0.02	*	2	26	1500	0.02 *	0	26	1500	0.02 *
NBT	0	0	0.00		0	0	0	0.00	0	0	0	0.00
NBR	468	3000	0.16		43	511	3000	0.17	0	511	3000	0.17
SBL	0	0	0.00		0	0	0	0.00	0	0	0	0.00
SBT	0	0	0.00	*	0	0	0	0.00 *	0	0	0	0.00 *
SBR	0	0	0.00		0	0	0	0.00	0	0	0	0.00
EBL	269	3000	0.09	*	25	294	3000	0.10 *	0	294	3000	0.10 *
EBT	692	3400	0.20		82	774	3400	0.23	24	798	3400	0.23
EBR	0	0	0.00		0	0	0	0.00	0	0	0	0.00
WBL	0	0	0.00		0	0	0	0.00	0	0	0	0.00
WBT	611	3400	0.30	*	57	668	3400	0.33 *	20	688	3400	0.34 *
WBR	397	0	0.00		55	452	0	0.00	20	472	0	0.00
CLEARANCE			0.10		CLEARANCE			0.10	CLEARANCE			0.10
			====					====				====
ICU VALUE			0.51		ICU VALUE			0.55	ICU VALUE			0.56
			----					----				----
LEVEL OF SERVICE= A					LEVEL OF SERVICE= A				LEVEL OF SERVICE= A			

A:439HNB5.ICU

TABLE _____
VOLUME-CAPACITY ANALYSIS
H ST. AND BROADWAY
PM

MOVEMENT	EXISTING CONDITIONS VOLUME	CAP	V/C RATIO	EXISTING + GROWTH + PROJECT ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	EXISTING + GROWTH + PROJECT + REL. PROJ. ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO
NBL	268	3000	0.09 *	39	307	3000	0.10 *	0	307	3000	0.10 *
NBT	497	3400	0.15	66	563	3400	0.17	0	563	3400	0.17
NBR	171	1500	0.11	16	187	1500	0.12	0	187	1500	0.12
SBL	139	3000	0.05	17	156	3000	0.05	0	156	3000	0.05
SBT	658	3400	0.19 *	81	739	3400	0.22 *	0	739	3400	0.22 *
SBR	200	1500	0.13	19	219	1500	0.15	0	219	1500	0.15
EBL	204	3000	0.07	19	223	3000	0.07	0	223	3000	0.07
EBT	718	3400	0.21 *	71	789	3400	0.23 *	18	807	3400	0.24 *
EBR	191	1500	0.13	32	223	1500	0.15	6	229	1500	0.15
WBL	226	3000	0.08 *	25	251	3000	0.08 *	20	271	3000	0.09 *
WT	561	3400	0.20	56	617	3400	0.22	40	657	3400	0.23
WBR	121	0	0.00	15	136	0	0.00	0	136	0	0.00
CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10
ICU VALUE			0.67	ICU VALUE			0.73	ICU VALUE			0.75
LEVEL OF SERVICE= B				LEVEL OF SERVICE= C				LEVEL OF SERVICE= C			

A:439HBDY.ICU

TABLE _____
VOLUME-CAPACITY ANALYSIS
H ST. AND 5TH AVENUE
PM

MOVEMENT	EXISTING CONDITIONS VOLUME	CAP	V/C RATIO	EXISTING + GROWTH + PROJECT ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	EXISTING + GROWTH + PROJECT + REL. PROJ. ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO
NBL	82	1500	0.05	20	102	1500	0.07	0	102	1500	0.07
NBT	61	1700	0.04 *	10	71	1700	0.04 *	0	71	1700	0.04 *
NBR	121	1500	0.08	23	144	1500	0.10	0	144	1500	0.10
SBL	122	1500	0.08 *	11	133	1500	0.09 *	20	153	1500	0.10 *
SBT	76	1700	0.04	11	87	1700	0.05	0	87	1700	0.05
SBR	51	1500	0.03	5	56	1500	0.04	20	76	1500	0.05
EBL	66	1500	0.04	6	72	1500	0.05	2	74	1500	0.05
EBT	812	3400	0.24 *	75	887	3400	0.26 *	16	903	3400	0.27 *
EBR	102	1500	0.07	14	116	1500	0.08	0	116	1500	0.08
WBL	146	1500	0.10 *	26	172	1500	0.11 *	0	172	1500	0.11 *
WBT	685	3400	0.22	64	749	3400	0.24	40	789	3400	0.26
WBR	67	0	0.00	6	73	0	0.00	20	93	0	0.00
CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10
ICU VALUE			0.56	ICU VALUE			0.60	ICU VALUE			0.62
LEVEL OF SERVICE= A				LEVEL OF SERVICE= A				LEVEL OF SERVICE= B			

A:439H5TH.ICU

TABLE _____
VOLUME-CAPACITY ANALYSIS
H ST. AND 4TH AVE.
PM

MOVEMENT	EXISTING CONDITIONS VOLUME	CAP	V/C RATIO		EXISTING + GROWTH + PROJECT ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO		EXISTING + GROWTH + PROJECT + REL. PROJ. ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO		A V
NBL	114	1500	0.08		12	126	1500	0.08		0	126	1500	0.08		
NBT	510	3400	0.17	*	50	560	3400	0.19	*	0	560	3400	0.19	*	
NBR	65	0	0.00		14	79	0	0.00		0	79	0	0.00		
SBL	166	1500	0.11	*	15	181	1500	0.12	*	0	181	1500	0.12	*	
SBT	627	3400	0.18		61	688	3400	0.20		0	688	3400	0.20		
SBR	215	1500	0.14		24	239	1500	0.16		0	239	1500	0.16		
EBL	262	3000	0.09	*	28	290	3000	0.10	*	4	294	3000	0.10	*	
EBT	749	3400	0.27		83	832	3400	0.30		70	902	3400	0.32		
EBR	163	0	0.00		15	178	0	0.00		22	200	0	0.00		
L	77	3000	0.03		15	92	3000	0.03		0	92	3000	0.03		
WBT	679	3400	0.23	*	77	756	3400	0.26	*	0	756	3400	0.26	*	
WBR	107	0	0.00		10	117	0	0.00		0	117	0	0.00		
CLEARANCE			0.10		CLEARANCE			0.10		CLEARANCE			0.10		
ICU VALUE			0.70		ICU VALUE			0.77		ICU VALUE			0.77		
LEVEL OF SERVICE= B					LEVEL OF SERVICE= C					LEVEL OF SERVICE= C					

4:439H4TH.ICU

TABLE _____
VOLUME-CAPACITY ANALYSIS
I ST. AND BROADWAY
PM

MOVEMENT	EXISTING CONDITIONS VOLUME	CAP	V/C RATIO		EXISTING + GROWTH + PROJECT ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO		EXISTING + GROWTH + PROJECT + REL. PROJ. ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	
NBL	10	1500	0.01		1	11	1500	0.01		0	11	1500	0.01	
NBT	713	3400	0.24	*	78	791	3400	0.28	*	0	791	3400	0.28	*
NBR	105	0	0.00		42	147	0	0.00		0	147	0	0.00	
SBL	97	1500	0.06	*	23	120	1500	0.08	*	3	123	1500	0.08	*
SBT	855	3400	0.26		83	938	3400	0.29		23	961	3400	0.29	
SBR	28	0	0.00		3	31	0	0.00		0	31	0	0.00	
EBL	22	0	0.00		2	24	0	0.00		0	24	0	0.00	
EBT	105	1600	0.08	*	10	115	1600	0.09	*	0	115	1600	0.09	*
EBR	18	1500	0.01		2	20	1500	0.01		0	20	1500	0.01	
WBL	210	1500	0.14	*	59	269	1500	0.18	*	0	269	1500	0.18	*
WBT	95	3400	0.03		9	104	3400	0.03		0	104	3400	0.03	
WBR	115	1500	0.08		26	141	1500	0.09		0	141	1500	0.09	
CLEARANCE			0.10		CLEARANCE			0.10		CLEARANCE			0.10	
ICU VALUE			0.62		ICU VALUE			0.73		ICU VALUE			0.73	
LEVEL OF SERVICE=			B		LEVEL OF SERVICE=			C		LEVEL OF SERVICE=			C	

A:439IBDY.ICU

TABLE _____
VOLUME-CAPACITY ANALYSIS
I ST. AND 5TH AVENUE
PM

MOVEMENT	EXISTING CONDITIONS VOLUME	CAP	V/C RATIO	EXISTING + GROWTH + PROJECT ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	EXISTING + GROWTH + PROJECT + REL. PROJ. ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO
NBL	39	1500	0.03	4	43	1500	0.03	0	43	1500	0.03
NBT	68	1700	0.07 *	7	75	1700	0.08 *	0	75	1700	0.08 *
NBR	50	0	0.00	5	55	0	0.00	0	55	0	0.00
SBL	48	1500	0.03 *	16	64	1500	0.04 *	0	64	1500	0.04 *
SBT	53	1700	0.03	6	59	1700	0.03	0	59	1700	0.03
SBR	23	1500	0.02	42	65	1500	0.04	0	65	1500	0.04
EBL	16	1500	0.01	31	47	1500	0.03	0	47	1500	0.03
EBT	302	1700	0.21 *	28	330	1700	0.23 *	1	331	1700	0.23 *
EBR	60	0	0.00	6	66	0	0.00	2	68	0	0.00
WBL	43	1500	0.03 *	4	47	1500	0.03 *	0	47	1500	0.03 *
WBT	221	1700	0.13	20	241	1700	0.14	0	241	1700	0.14
WBR	47	1500	0.03	7	54	1500	0.04	0	54	1500	0.04
CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10
			====				====				====
ICU VALUE			0.44	ICU VALUE			0.48	ICU VALUE			0.48
			----				----				----
LEVEL OF SERVICE= A				LEVEL OF SERVICE= A				LEVEL OF SERVICE= A			

A:4391STH.ICU

TABLE _____
VOLUME-CAPACITY ANALYSIS
i street and fourth ave.
pm

MOVEMENT	EXISTING CONDITIONS VOLUME	CAP	V/C RATIO	EXISTING + GROWTH + PROJECT ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	EXISTING + GROWTH + PROJECT + REL. PROJ. ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO
NBL	58	1500	0.04 *	6	64	1500	0.04 *	0	64	1500	0.04 *
NBT	549	3400	0.17	51	600	3400	0.19	0	600	3400	0.19
NBR	37	0	0.00	3	40	0	0.00	0	40	0	0.00
SBL	50	1500	0.03	5	55	1500	0.04	5	60	1500	0.04
SBT	749	3400	0.24 *	69	818	3400	0.26 *	15	833	3400	0.27 *
SBR	66	0	0.00	17	83	0	0.00	0	83	0	0.00
EBL	84	1500	0.06	19	103	1500	0.07	0	103	1500	0.07
EBT	301	1700	0.22 *	32	333	1700	0.24 *	1	334	1700	0.24 *
EBR	73	0	0.00	8	81	0	0.00	0	81	0	0.00
WBL	47	1500	0.03 *	4	51	1500	0.03 *	0	51	1500	0.03 *
WBT	236	1700	0.16	25	261	1700	0.18	0	261	1700	0.18
WBR	41	0	0.00	5	46	0	0.00	0	46	0	0.00
CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10
ICU VALUE			0.63	ICU VALUE			0.67	ICU VALUE			0.68
LEVEL OF SERVICE= B				LEVEL OF SERVICE= B				LEVEL OF SERVICE= B			

A:439I4TH.ICU

TABLE _____
VOLUME-CAPACITY ANALYSIS
J STREET AND I-5 SB RAMPS
PM

	EXISTING CONDITIONS			EXISTING + GROWTH + PROJECT				EXISTING + GROWTH + PROJECT + REL. PROJ.			
MOVEMENT	VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO
NBL	0	0	0.00	0	0	0	0.00	0	0	0	0.00
NBT	0	0	0.00 *	0	0	0	0.00 *	0	0	0	0.00 *
NBR	0	0	0.00	0	0	0	0.00	0	0	0	0.00
SBL	386	1500	0.26 *	36	422	1500	0.28 *	0	422	1500	0.28 *
SBT	0	0	0.00	0	0	0	0.00	0	0	0	0.00
SBR	114	1500	0.08	11	125	1500	0.08	0	125	1500	0.08
EBL	0	0	0.00	0	0	0	0.00	0	0	0	0.00
EBT	422	5100	0.08 *	39	461	5100	0.09 *	0	461	5100	0.09 *
EBR	126	1500	0.08	12	138	1500	0.09	0	138	1500	0.09
WBL	244	1500	0.16 *	34	278	1500	0.19 *	0	278	1500	0.19 *
WBT	110	3400	0.03	10	120	3400	0.04	0	120	3400	0.04
WBR	0	0	0.00	0	0	0	0.00	0	0	0	0.00
CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10
ICU VALUE			0.60	ICU VALUE			0.66	ICU VALUE			0.66
LEVEL OF SERVICE=			A	LEVEL OF SERVICE=			B	LEVEL OF SERVICE=			B

A:439jsb5.ICU

TABLE _____
VOLUME-CAPACITY ANALYSIS
J STREET AND BROADWAY
PM

	EXISTING CONDITIONS			EXISTING + GROWTH + PROJECT				EXISTING + GROWTH + PROJECT + REL. PROJ.			
MOVEMENT	VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO
NBL	62	1500	0.04 *	6	68	1500	0.05 *	0	68	1500	0.05 *
NBT	667	3400	0.22	93	760	3400	0.24	0	760	3400	0.24
NBR	64	0	0.00	6	70	0	0.00	0	70	0	0.00
SBL	45	1500	0.03	6	51	1500	0.03	3	54	1500	0.04
SBT	787	3400	0.26 *	104	891	3400	0.30 *	20	911	3400	0.31 *
SBR	106	0	0.00	21	127	0	0.00	0	127	0	0.00
EBL	110	1500	0.07	21	131	1500	0.09	0	131	1500	0.09
EBT	438	3400	0.17 *	41	479	3400	0.18 *	0	479	3400	0.18 *
EBR	126	0	0.00	12	138	0	0.00	0	138	0	0.00
WBL	56	1500	0.04 *	5	61	1500	0.04 *	0	61	1500	0.04 *
WBT	233	3400	0.08	22	255	3400	0.09	0	255	3400	0.09
WBR	45	0	0.00	6	51	0	0.00	0	51	0	0.00
CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10
ICU VALUE			0.61	ICU VALUE			0.67	ICU VALUE			0.68
LEVEL OF SERVICE= B				LEVEL OF SERVICE= B				LEVEL OF SERVICE= B			

A:439jbdy.ICU

TABLE _____
VOLUME-CAPACITY ANALYSIS
J ST. ANDI-5 NB RAMPS
PM

MOVEMENT	EXISTING CONDITIONS VOLUME	CAP	V/C RATIO	EXISTING + GROWTH + PROJECT ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	EXISTING + GROWTH + PROJECT + REL. PROJ. ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO
NBL	55	1500	0.04	5	60	1500	0.04	0	60	1500	0.04
NBT	0	0	0.00	0	0	0	0.00	0	0	0	0.00
NBR	280	1500	0.19 *	37	317	1500	0.21 *	0	317	1500	0.21 *
SBL	0	0	0.00 *	0	0	0	0.00 *	0	0	0	0.00 *
SBT	0	0	0.00	0	0	0	0.00	0	0	0	0.00
SBR	0	0	0.00	0	0	0	0.00	0	0	0	0.00
EBL	202	1500	0.13	19	221	1500	0.15	0	221	1500	0.15
EBT	602	3400	0.18 *	56	658	3400	0.19 *	0	658	3400	0.19 *
EBR	0	0	0.00	0	0	0	0.00	0	0	0	0.00
WBL	0	0	0.00	0	0	0	0.00	0	0	0	0.00
WBT	330	3400	0.15	42	372	3400	0.17	0	372	3400	0.17
WBR	192	0	0.00	18	210	0	0.00	0	210	0	0.00
CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10
ICU VALUE			0.47	ICU VALUE			0.50	ICU VALUE			0.50
LEVEL OF SERVICE= A				LEVEL OF SERVICE= A				LEVEL OF SERVICE= A			

A:439jnb5.ICU

TABLE _____
VOLUME-CAPACITY ANALYSIS
H ST./I-5 SB RAMPS
PM

MOVEMENT	EXISTING CONDITIONS VOLUME	CAP	V/C RATIO	EXISTING + GROWTH + PROJECT ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	EXISTING + GROWTH + PROJECT + REL. PROJ. ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO
NBL	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
NBT	0	0	0.00 *	0	0	0	0.00 *	0	0	0	0.00 *	0	0	0	0.00	0	0	0	0.
NBR	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
SBL	587	3000	0.20 *	72	659	3000	0.22 *	0	659	3000	0.22 *	0	0	0	0.00	0	0	0	0.
SBT	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
SBR	34	3000	0.01	3	37	3000	0.01	0	37	3000	0.01	0	0	0	0.00	0	0	0	0.00
EBL	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.
EBT	418	5100	0.10 *	39	457	5100	0.11 *	24	481	5100	0.11 *	0	0	0	0.00	0	0	0	0.00
EBR	83	0	0.00	8	91	0	0.00	9	100	0	0.00	0	0	0	0.00	0	0	0	0.00
WBL	595	3000	0.20 *	55	650	3000	0.22 *	20	670	3000	0.22 *	0	0	0	0.00	0	0	0	0.00
WBT	67	3400	0.02	6	73	3400	0.02	0	73	3400	0.02	0	0	0	0.00	0	0	0	0.00
WBR	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.
CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10
ICU VALUE			0.60	ICU VALUE			0.65	ICU VALUE			0.65	ICU VALUE			0.00	ICU VALUE			0.
LEVEL OF SERVICE= A				LEVEL OF SERVICE= B				LEVEL OF SERVICE= B				LEVEL OF SERVICE=				LEVEL OF SERVICE=			

A:439hsb5.ICU

TABLE _____
VOLUME-CAPACITY ANALYSIS
H ST./I-5NB RAMPS
PM

MOVEMENT	EXISTING CONDITIONS VOLUME	CAP	V/C RATIO	EXISTING + GROWTH + PROJECT ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	EXISTING + GROWTH + PROJECT + REL. PROJ. ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO
NBL	24	1500	0.02 *	2	26	1500	0.02 *	0	26	1500	0.02 *	0	0	0	0.00	0	0	0	0.00
NBT	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
NBR	468	3000	0.16	43	511	3000	0.17	0	511	3000	0.17	0	0	0	0.00	0	0	0	0.00
SBL	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
SBT	0	0	0.00 *	0	0	0	0.00 *	0	0	0	0.00 *	0	0	0	0.00	0	0	0	0.00
SBR	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
EBL	269	3000	0.09 *	25	294	3000	0.10 *	0	294	3000	0.10 *	0	0	0	0.00	0	0	0	0.00
EBT	692	3400	0.20	82	774	3400	0.23	24	798	3400	0.23	0	0	0	0.00	0	0	0	0.00
EBR	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
WBL	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
WBT	611	3400	0.30 *	57	668	3400	0.33 *	20	688	3400	0.34 *	0	0	0	0.00	0	0	0	0.00
WBR	397	0	0.00	55	452	0	0.00	20	472	0	0.00	0	0	0	0.00	0	0	0	0.00
CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10
			====				====				====				====				====
ICU VALUE			0.51	ICU VALUE			0.55	ICU VALUE			0.56	ICU VALUE			0.00	ICU VALUE			0.00
			----				----				----				----				----
LEVEL OF SERVICE= A				LEVEL OF SERVICE= A				LEVEL OF SERVICE= A				LEVEL OF SERVICE=				LEVEL OF SERVICE=			

A:439hnb5.ICU

TABLE _____
VOLUME-CAPACITY ANALYSIS
H ST. AND BROADWAY
PM

MOVEMENT	EXISTING CONDITIONS VOLUME	CAP	V/C RATIO	EXISTING + GROWTH + PROJECT ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	EXISTING + GROWTH + PROJECT + REL. PROJ. ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO					ADD. VOL.	TOTAL VOLUME	CAP	V RATIO
NBL	268	3000	0.09 *	39	307	3000	0.10 *	0	307	3000	0.10 *	0	0	0	0.00	0	0	0	0.00
NBT	497	3400	0.15	66	563	3400	0.17	0	563	3400	0.17	0	0	0	0.00	0	0	0	0.00
NBR	171	1500	0.11	16	187	1500	0.12	0	187	1500	0.12	0	0	0	0.00	0	0	0	0.
SBL	139	3000	0.05	17	156	3000	0.05	0	156	3000	0.05	0	0	0	0.00	0	0	0	0.00
SBT	658	3400	0.19 *	81	739	3400	0.22 *	0	739	3400	0.22 *	0	0	0	0.00	0	0	0	0.
SBR	200	1500	0.13	19	219	1500	0.15	0	219	1500	0.15	0	0	0	0.00	0	0	0	0.
EBL	204	3000	0.07	19	223	3000	0.07	0	223	3000	0.07	0	0	0	0.00	0	0	0	0.00
EBT	718	3400	0.21 *	71	789	3400	0.23 *	18	807	3400	0.24 *	0	0	0	0.00	0	0	0	0.
EBR	191	1500	0.13	32	223	1500	0.15	6	229	1500	0.15	0	0	0	0.00	0	0	0	0.
WBL	226	3000	0.08 *	25	251	3000	0.08 *	20	271	3000	0.09 *	0	0	0	0.00	0	0	0	
WBT	561	3400	0.20	56	617	3400	0.22	40	657	3400	0.23	0	0	0	0.00	0	0	0	..
WBR	121	0	0.00	15	136	0	0.00	0	136	0	0.00	0	0	0	0.00	0	0	0	0.00
CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.
			====				====				====				====				====
ICU VALUE			0.67	ICU VALUE			0.73	ICU VALUE			0.75	ICU VALUE			0.00	ICU VALUE			0.00
			----				----				----				----				--
LEVEL OF SERVICE= B				LEVEL OF SERVICE= C				LEVEL OF SERVICE= C				LEVEL OF SERVICE=				LEVEL OF SERVICE=			

A:439HBDY.ICU

TABLE _____
VOLUME-CAPACITY ANALYSIS
H ST. AND 5TH AVENUE
PM

	EXISTING CONDITIONS			EXISTING + GROWTH + PROJECT				EXISTING + GROWTH + PROJECT + REL. PROJ.											
MOVEMENT	VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO
NBL	82	1500	0.05	20	102	1500	0.07	0	102	1500	0.07	0	0	0	0.00	0	0	0	0.00
NBT	61	1700	0.04 *	10	71	1700	0.04 *	0	71	1700	0.04 *	0	0	0	0.00	0	0	0	0.00
NBR	121	1500	0.08	23	144	1500	0.10	0	144	1500	0.10	0	0	0	0.00	0	0	0	0.00
SBL	122	1500	0.08 *	11	133	1500	0.09 *	20	153	1500	0.10 *	0	0	0	0.00	0	0	0	0.00
SBT	76	1700	0.04	11	87	1700	0.05	0	87	1700	0.05	0	0	0	0.00	0	0	0	0.00
SBR	51	1500	0.03	5	56	1500	0.04	20	76	1500	0.05	0	0	0	0.00	0	0	0	0.00
EBL	66	1500	0.04	6	72	1500	0.05	2	74	1500	0.05	0	0	0	0.00	0	0	0	0.00
EBT	812	3400	0.24 *	75	887	3400	0.26 *	16	903	3400	0.27 *	0	0	0	0.00	0	0	0	0.00
EBR	102	1500	0.07	14	116	1500	0.08	0	116	1500	0.08	0	0	0	0.00	0	0	0	0.00
WBL	146	1500	0.10 *	26	172	1500	0.11 *	0	172	1500	0.11 *	0	0	0	0.00	0	0	0	0.00
WBT	685	3400	0.22	64	749	3400	0.24	40	789	3400	0.26	0	0	0	0.00	0	0	0	0.00
WBR	67	0	0.00	6	73	0	0.00	20	93	0	0.00	0	0	0	0.00	0	0	0	0.00
CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10
ICU VALUE			0.56	ICU VALUE			0.60	ICU VALUE			0.62	ICU VALUE			0.00	ICU VALUE			0.00
LEVEL OF SERVICE= A				LEVEL OF SERVICE= A				LEVEL OF SERVICE= B				LEVEL OF SERVICE=				LEVEL OF SERVICE=			

A:439H5TH.ICU

TABLE _____
VOLUME-CAPACITY ANALYSIS
H ST. AND 4TH AVE.
PM

	EXISTING CONDITIONS			EXISTING + GROWTH + PROJECT				EXISTING + GROWTH + PROJECT + REL. PROJ.											
MOVEMENT	VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO
NBL	114	1500	0.08	12	126	1500	0.08	0	126	1500	0.08	0	0	0	0.00	0	0	0	0.00
NBT	510	3400	0.17 *	50	560	3400	0.19 *	0	560	3400	0.19 *	0	0	0	0.00	0	0	0	0.00
NBR	65	0	0.00	14	79	0	0.00	0	79	0	0.00	0	0	0	0.00	0	0	0	0.00
SBL	166	1500	0.11 *	15	181	1500	0.12 *	0	181	1500	0.12 *	0	0	0	0.00	0	0	0	0.00
SBT	627	3400	0.18	61	688	3400	0.20	0	688	3400	0.20	0	0	0	0.00	0	0	0	0.00
SBR	215	1500	0.14	24	239	1500	0.16	0	239	1500	0.16	0	0	0	0.00	0	0	0	0.00
EBL	262	3000	0.09 *	28	290	3000	0.10 *	4	294	3000	0.10 *	0	0	0	0.00	0	0	0	0.00
EBT	749	3400	0.27	83	832	3400	0.30	70	902	3400	0.32	0	0	0	0.00	0	0	0	0.00
EBR	163	0	0.00	15	178	0	0.00	22	200	0	0.00	0	0	0	0.00	0	0	0	0.00
WBL	77	3000	0.03	15	92	3000	0.03	0	92	3000	0.03	0	0	0	0.00	0	0	0	0.00
WBT	679	3400	0.23 *	77	756	3400	0.26 *	0	756	3400	0.26 *	0	0	0	0.00	0	0	0	0.00
WBR	107	0	0.00	10	117	0	0.00	0	117	0	0.00	0	0	0	0.00	0	0	0	0.00
CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.00
ICU VALUE			0.70	ICU VALUE			0.77	ICU VALUE			0.77	ICU VALUE			0.00	ICU VALUE			0.00
LEVEL OF SERVICE=			B	LEVEL OF SERVICE=			C	LEVEL OF SERVICE=			C	LEVEL OF SERVICE=				LEVEL OF SERVICE=			

A:439H4TH.ICU

TABLE _____
VOLUME-CAPACITY ANALYSIS
I ST. AND BROADWAY
PM

MOVEMENT	EXISTING CONDITIONS VOLUME	CAP	V/C RATIO	EXISTING + GROWTH + PROJECT ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	EXISTING + GROWTH + PROJECT + REL. PROJ. ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO
NBL	10	1500	0.01	1	11	1500	0.01	0	11	1500	0.01	0	0	0	0.00	0	0	0	0.00
NBT	713	3400	0.24 *	78	791	3400	0.28 *	0	791	3400	0.28 *	0	0	0	0.00	0	0	0	0.00
NBR	105	0	0.00	42	147	0	0.00	0	147	0	0.00	0	0	0	0.00	0	0	0	0.00
SBL	97	1500	0.06 *	23	120	1500	0.08 *	3	123	1500	0.08 *	0	0	0	0.00	0	0	0	0.00
SBT	855	3400	0.26	83	938	3400	0.29	23	961	3400	0.29	0	0	0	0.00	0	0	0	0.00
SBR	28	0	0.00	3	31	0	0.00	0	31	0	0.00	0	0	0	0.00	0	0	0	0.00
EBL	22	0	0.00	2	24	0	0.00	0	24	0	0.00	0	0	0	0.00	0	0	0	0.00
EBT	105	1600	0.08 *	10	115	1600	0.09 *	0	115	1600	0.09 *	0	0	0	0.00	0	0	0	0.00
EBR	18	1500	0.01	2	20	1500	0.01	0	20	1500	0.01	0	0	0	0.00	0	0	0	0.00
WBL	210	1500	0.14 *	59	269	1500	0.18 *	0	269	1500	0.18 *	0	0	0	0.00	0	0	0	0.00
WBT	95	3400	0.03	9	104	3400	0.03	0	104	3400	0.03	0	0	0	0.00	0	0	0	0.00
WBR	115	1500	0.08	26	141	1500	0.09	0	141	1500	0.09	0	0	0	0.00	0	0	0	0.00
CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10
			====				====				====				====				====
ICU VALUE			0.62	ICU VALUE			0.73	ICU VALUE			0.73	ICU VALUE			0.00	ICU VALUE			0.00
			----				----				----				----				----
LEVEL OF SERVICE= B				LEVEL OF SERVICE= C				LEVEL OF SERVICE= C				LEVEL OF SERVICE=				LEVEL OF SERVICE=			

A:439IBDY.ICU

TABLE _____
VOLUME-CAPACITY ANALYSIS
I ST. AND 5TH AVENUE
PM

	EXISTING CONDITIONS			EXISTING + GROWTH + PROJECT				EXISTING + GROWTH + PROJECT + REL. PROJ.											
MOVEMENT	VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO
NBL	39	1500	0.03	4	43	1500	0.03	0	43	1500	0.03	0	0	0	0.00	0	0	0	0.00
NBT	68	1700	0.07 *	7	75	1700	0.08 *	0	75	1700	0.08 *	0	0	0	0.00	0	0	0	0 ^^
NBR	50	0	0.00	5	55	0	0.00	0	55	0	0.00	0	0	0	0.00	0	0	0	0)
SBL	48	1500	0.03 *	16	64	1500	0.04 *	0	64	1500	0.04 *	0	0	0	0.00	0	0	0	0.00
SBT	53	1700	0.03	6	59	1700	0.03	0	59	1700	0.03	0	0	0	0.00	0	0	0	0)
SBR	23	1500	0.02	42	65	1500	0.04	0	65	1500	0.04	0	0	0	0.00	0	0	0	0)
EBL	16	1500	0.01	31	47	1500	0.03	0	47	1500	0.03	0	0	0	0.00	0	0	0	0 ^)
EBT	302	1700	0.21 *	28	330	1700	0.23 *	1	331	1700	0.23 *	0	0	0	0.00	0	0	0	0)
EBR	60	0	0.00	6	66	0	0.00	2	68	0	0.00	0	0	0	0.00	0	0	0	0.00
WBL	43	1500	0.03 *	4	47	1500	0.03 *	0	47	1500	0.03 *	0	0	0	0.00	0	0		)
WBT	221	1700	0.13	20	241	1700	0.14	0	241	1700	0.14	0	0	0	0.00	0	0	0	0.00
WBR	47	1500	0.03	7	54	1500	0.04	0	54	1500	0.04	0	0	0	0.00	0	0	0	0.00
CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0)
			====				====				====				====				====
ICU VALUE			0.44	ICU VALUE			0.48	ICU VALUE			0.48	ICU VALUE			0.00	ICU VALUE			0 ^)
			----				----				----				----				- -
LEVEL OF SERVICE= A				LEVEL OF SERVICE= A				LEVEL OF SERVICE= A				LEVEL OF SERVICE=				LEVEL OF SERVICE=			

A:439I5TH.ICU

TABLE _____
VOLUME-CAPACITY ANALYSIS
i street and fourth ave.
pm

	EXISTING CONDITIONS			EXISTING + GROWTH + PROJECT				EXISTING + GROWTH + PROJECT + REL. PROJ.											
MOVEMENT	VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATI
NBL	58	1500	0.04 *	6	64	1500	0.04 *	0	64	1500	0.04 *	0	0	0	0.00	0	0	0	0.00
NBT	549	3400	0.17	51	600	3400	0.19	0	600	3400	0.19	0	0	0	0.00	0	0	0	0.00
NBR	37	0	0.00	3	40	0	0.00	0	40	0	0.00	0	0	0	0.00	0	0	0	0.00
SBL	50	1500	0.03	5	55	1500	0.04	5	60	1500	0.04	0	0	0	0.00	0	0	0	0.00
SBT	749	3400	0.24 *	69	818	3400	0.26 *	15	833	3400	0.27 *	0	0	0	0.00	0	0	0	0.00
SBR	66	0	0.00	17	83	0	0.00	0	83	0	0.00	0	0	0	0.00	0	0	0	0.00
EBL	84	1500	0.06	19	103	1500	0.07	0	103	1500	0.07	0	0	0	0.00	0	0	0	0.00
EBT	301	1700	0.22 *	32	333	1700	0.24 *	1	334	1700	0.24 *	0	0	0	0.00	0	0	0	0.00
EBR	73	0	0.00	8	81	0	0.00	0	81	0	0.00	0	0	0	0.00	0	0	0	0.00
WBL	47	1500	0.03 *	4	51	1500	0.03 *	0	51	1500	0.03 *	0	0	0	0.00	0	0	0	0.00
WBT	236	1700	0.16	25	261	1700	0.18	0	261	1700	0.18	0	0	0	0.00	0	0	0	0.00
WBR	41	0	0.00	5	46	0	0.00	0	46	0	0.00	0	0	0	0.00	0	0	0	0.00
CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10
			====				====				====				====				====
ICU VALUE			0.63	ICU VALUE			0.67	ICU VALUE			0.68	ICU VALUE			0.00	ICU VALUE			0.00
			----				----				----				----				----
LEVEL OF SERVICE= B				LEVEL OF SERVICE= B				LEVEL OF SERVICE= B				LEVEL OF SERVICE=				LEVEL OF SERVICE=			

A:439I4TH.ICU

TABLE _____
VOLUME-CAPACITY ANALYSIS
J ST. ANDI-5 NB RAMPS
PM

	EXISTING CONDITIONS			EXISTING + GROWTH + PROJECT				EXISTING + GROWTH + PROJECT + REL. PROJ.											
MOVEMENT	VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RA
NBL	55	1500	0.04	5	60	1500	0.04	0	60	1500	0.04	0	0	0	0.00	0	0	0	0.^^
NBT	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.
NBR	280	1500	0.19 *	37	317	1500	0.21 *	0	317	1500	0.21 *	0	0	0	0.00	0	0	0	0.00
SBL	0	0	0.00 *	0	0	0	0.00 *	0	0	0	0.00 *	0	0	0	0.00	0	0	0	0.
SBT	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0...
SBR	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
EBL	202	1500	0.13	19	221	1500	0.15	0	221	1500	0.15	0	0	0	0.00	0	0	0	0.
EBT	602	3400	0.18 *	56	658	3400	0.19 *	0	658	3400	0.19 *	0	0	0	0.00	0	0	0	0.00
EBR	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
WBL	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
WBT	330	3400	0.15	42	372	3400	0.17	0	372	3400	0.17	0	0	0	0.00	0	0	0	0.00
WBR	192	0	0.00	18	210	0	0.00	0	210	0	0.00	0	0	0	0.00	0	0	0	0.
CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10
			====				====				====				====				==
ICU VALUE			0.47	ICU VALUE			0.50	ICU VALUE			0.50	ICU VALUE			0.00	ICU VALUE			0.
			----				----				----				----				----
LEVEL OF SERVICE= A				LEVEL OF SERVICE= A				LEVEL OF SERVICE= A				LEVEL OF SERVICE=				LEVEL OF SERVICE=			

A:439jnb5.ICU

TABLE _____
VOLUME-CAPACITY ANALYSIS
J STREET AND BROADWAY
PM

	EXISTING CONDITIONS			EXISTING + GROWTH + PROJECT				EXISTING + GROWTH + PROJECT + REL. PROJ.											
MOVEMENT	VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO
NBL	62	1500	0.04 *	6	68	1500	0.05 *	0	68	1500	0.05 *	0	0	0	0.00	0	0	0	0.00
NBT	667	3400	0.22	93	760	3400	0.24	0	760	3400	0.24	0	0	0	0.00	0	0	0	0.00
NBR	64	0	0.00	6	70	0	0.00	0	70	0	0.00	0	0	0	0.00	0	0	0	0.00
SBL	45	1500	0.03	6	51	1500	0.03	3	54	1500	0.04	0	0	0	0.00	0	0	0	0.00
SBT	787	3400	0.26 *	104	891	3400	0.30 *	20	911	3400	0.31 *	0	0	0	0.00	0	0	0	0.00
SBR	106	0	0.00	21	127	0	0.00	0	127	0	0.00	0	0	0	0.00	0	0	0	0.00
EBL	110	1500	0.07	21	131	1500	0.09	0	131	1500	0.09	0	0	0	0.00	0	0	0	0.00
EBT	438	3400	0.17 *	41	479	3400	0.18 *	0	479	3400	0.18 *	0	0	0	0.00	0	0	0	0.00
EBR	126	0	0.00	12	138	0	0.00	0	138	0	0.00	0	0	0	0.00	0	0	0	0.00
WBL	56	1500	0.04 *	5	61	1500	0.04 *	0	61	1500	0.04 *	0	0	0	0.00	0	0	0	0.00
WBT	233	3400	0.08	22	255	3400	0.09	0	255	3400	0.09	0	0	0	0.00	0	0	0	0.00
WBR	45	0	0.00	6	51	0	0.00	0	51	0	0.00	0	0	0	0.00	0	0	0	0.00
CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10
ICU VALUE			0.61	ICU VALUE			0.67	ICU VALUE			0.68	ICU VALUE			0.00	ICU VALUE			0.00
LEVEL OF SERVICE= B				LEVEL OF SERVICE= B				LEVEL OF SERVICE= B				LEVEL OF SERVICE=				LEVEL OF SERVICE=			

A:439jbdy.ICU

TABLE _____
VOLUME-CAPACITY ANALYSIS
J STREET AND I-5 SB RAMPS
PM

	EXISTING CONDITIONS			EXISTING + GROWTH + PROJECT				EXISTING + GROWTH + PROJECT + REL. PROJ.											
MOVEMENT	VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO	ADD. VOL.	TOTAL VOLUME	CAP	V/C RATIO
NBL	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
NBT	0	0	0.00 *	0	0	0	0.00 *	0	0	0	0.00 *	0	0	0	0.00	0	0	0	0.
NBR	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.
SBL	386	1500	0.26 *	36	422	1500	0.28 *	0	422	1500	0.28 *	0	0	0	0.00	0	0	0	0.00
SBT	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.
SBR	114	1500	0.08	11	125	1500	0.08	0	125	1500	0.08	0	0	0	0.00	0	0	0	0.00
EBL	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.
EBT	422	5100	0.08 *	39	461	5100	0.09 *	0	461	5100	0.09 *	0	0	0	0.00	0	0	0	0.
EBR	126	1500	0.08	12	138	1500	0.09	0	138	1500	0.09	0	0	0	0.00	0	0	0	0.00
WBL	244	1500	0.16 *	34	278	1500	0.19 *	0	278	1500	0.19 *	0	0	0	0.00	0	0	0	
WBT	110	3400	0.03	10	120	3400	0.04	0	120	3400	0.04	0	0	0	0.00	0	0	0	0.00
WBR	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0.10	CLEARANCE			0...
ICU VALUE			0.60	ICU VALUE			0.66	ICU VALUE			0.66	ICU VALUE			0.00	ICU VALUE			0.
LEVEL OF SERVICE= A				LEVEL OF SERVICE= B				LEVEL OF SERVICE= B				LEVEL OF SERVICE=				LEVEL OF SERVICE=			

A:439jsb5.ICU

APPENDIX D

NOISE TECHNICAL ANALYSIS FOR THE CHULA VISTA MALL EXPANSION PROJECT

Prepared for

CITY OF CHULA VISTA
276 FOURTH AVENUE
CHULA VISTA, CA 91910

Prepared by

RECON
Regional Environmental Consultants
7460 Mission Valley Road, San Diego, CA 92108 (619) 542-1611

RECON NUMBER 2333N
JUNE 17, 1991

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ATTACHMENT

1: STAMINA output files

FIGURES

1: The location of the proposed project in relation to county of San Diego 2
2: Project location on City of Chula Vista Street Map 3
3: Proposed site plan 4

TABLE

1: Existing, Future, and Future plus Project ADTs for I Street 7

I. INTRODUCTION

The proposed project is the expansion of the existing Chula Vista Shopping Center. The mall is located on approximately 55 acres in the City of Chula Vista, between "H" and "I" Streets east of Broadway. Figures 1 and 2 show the location of the project site in relation to the county of San Diego and to the local street system, respectively.

The proposed expansion includes the construction of three new buildings on the site and the demolition of an existing structure (66,648 square feet) for a total net increase in retail space of 74,316 square feet. Figure 3 shows the proposed site plan. One new structure would be a two-story parking garage containing approximately 900 stalls, located in the southwest region of the site. An 82,600-square-foot department store is proposed east of the parking structure. Directly northeast of the department store would be a two-story building housing a drug store (23,400 square feet) on the first level and a cinema (36,000 square feet) on the second. The total square footage of new building retail space would be 141,000 square feet.

An existing 8,000-square-foot vacant Penney (Firestone) Automotive Center may also be removed as part of this project. This building is located on the south side of the mall, west of the building proposed to be demolished.

The purpose of this report is to determine whether the proposed project would cause significant increases in noise levels at the residences located along the south side of I Street between Broadway and Fourth Avenue. Increases in noise levels due to project-generated traffic were calculated and considered in relation to Chula Vista standards. Parking lot and parking structure noise levels were also addressed.

II. SUMMARY OF FINDINGS

There would not be a significant noise impact to the residences along the south side of I Street between Fourth Avenue and Broadway due to implementation of the proposed project.

Existing exterior day/night average noise levels (L_{dn}) 50 feet from I Street are approximately 60-61 L_{dn}. Noise levels may be greater than 61 L_{dn} along I Street at the intersections of Fourth Avenue, Fifth Avenue, and Broadway where traffic on these roadways contributes to the existing noise environment. In addition, occasional aircraft overflights also contribute to the existing noise levels.

Future (1994) noise levels without the project are estimated to be approximately 61 L_{dn} fifty feet from I Street. The increase in traffic along I Street between Broadway and Fifth Avenue would raise the day/night average noise level by 1 a-weighted decibel (dBA) over existing levels. The increase in traffic volumes was not great enough to raise noise levels along I Street between Fifth and Fourth Avenues.

The project-related increases in traffic would not significantly increase the noise levels which would be generated in 1994. The estimated future (1994) noise levels produced by traffic on I Street, including project-generated traffic, would remain at 61 L_{dn}.

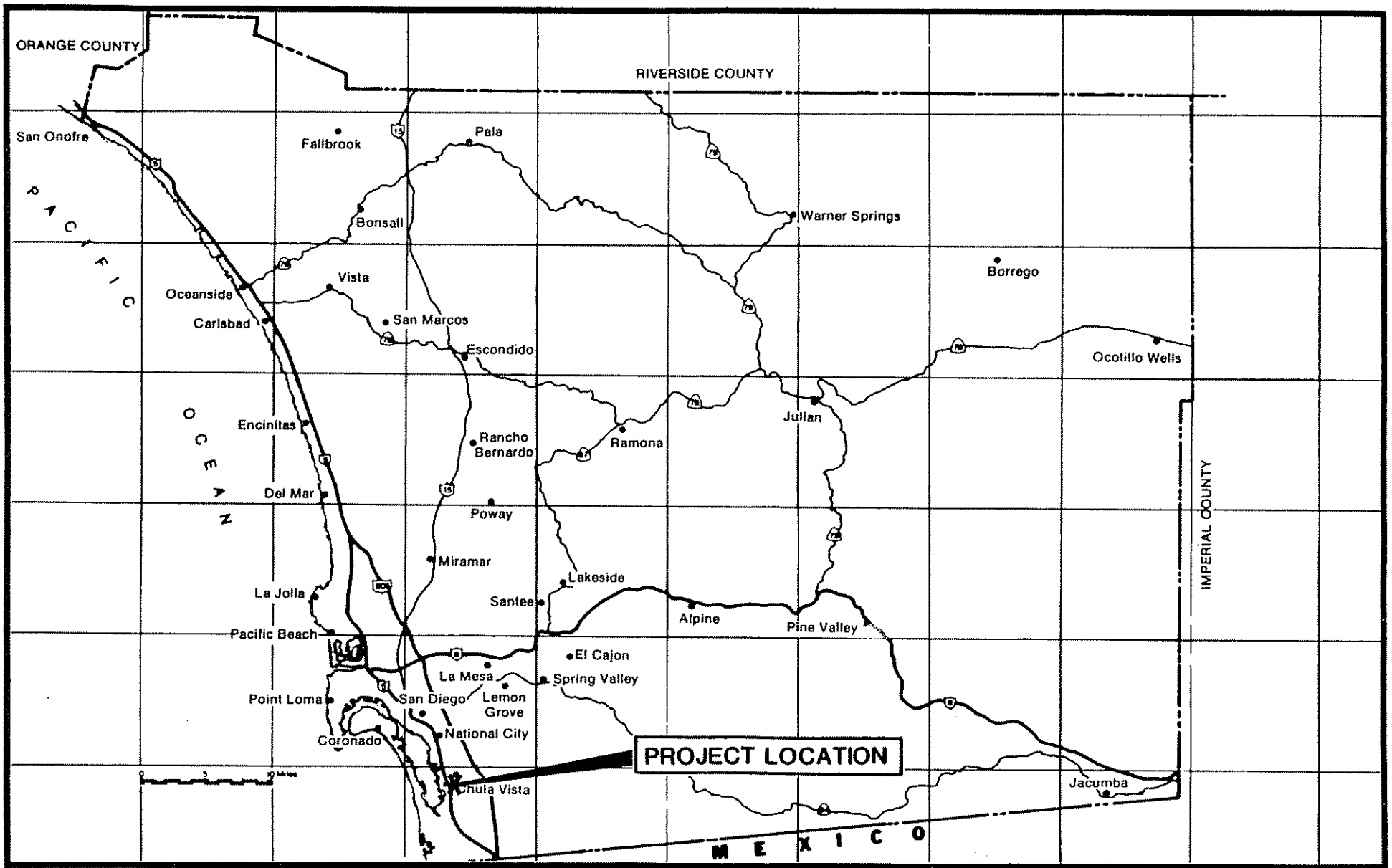

FIGURE 1. THE LOCATION OF THE PROPOSED PROJECT RELATIVE TO THE COUNTY OF SAN DIEGO.

RECON

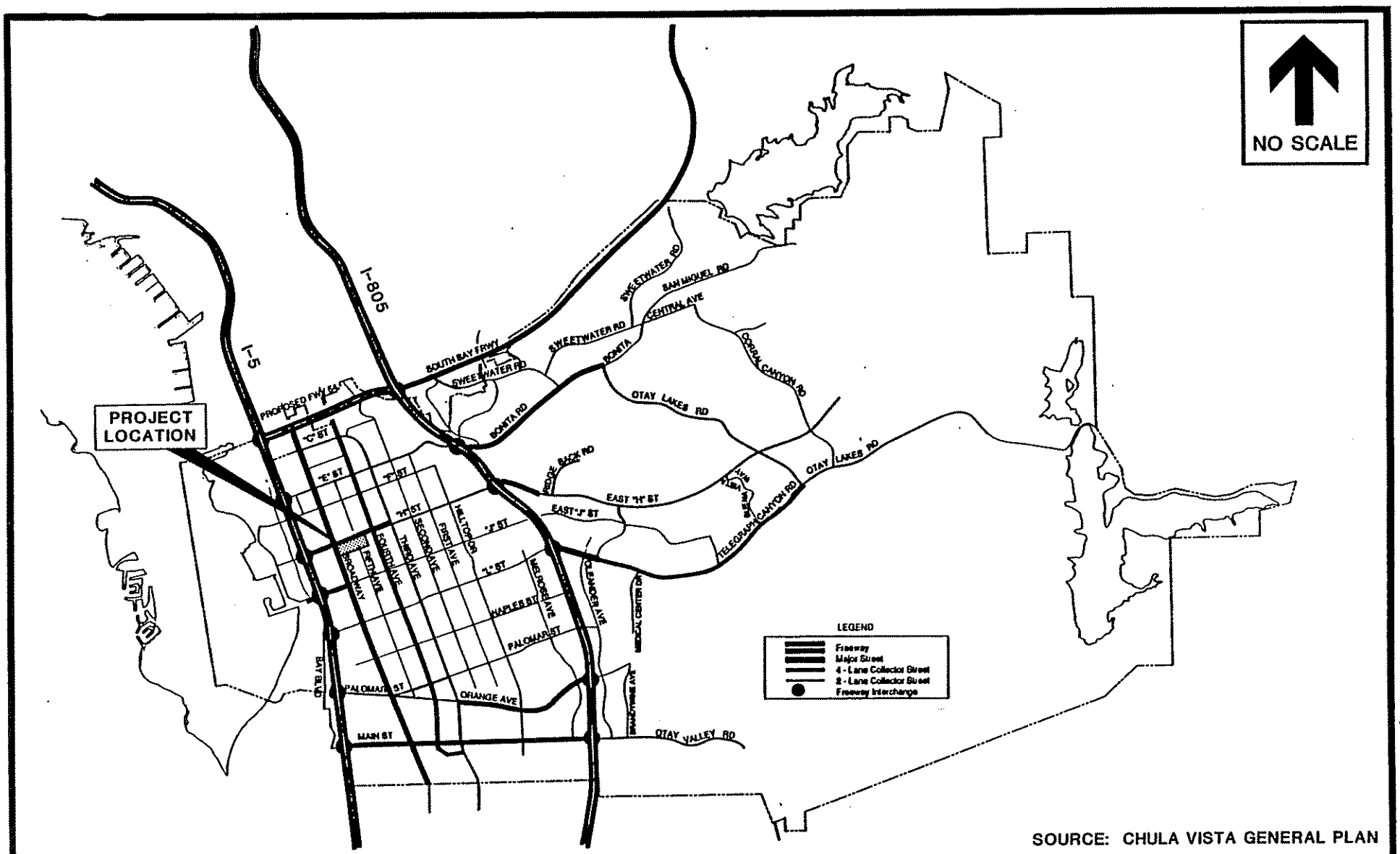

FIGURE 2. PROJECT LOCATION IN RELATION TO CHULA VISTA STREET NETWORK

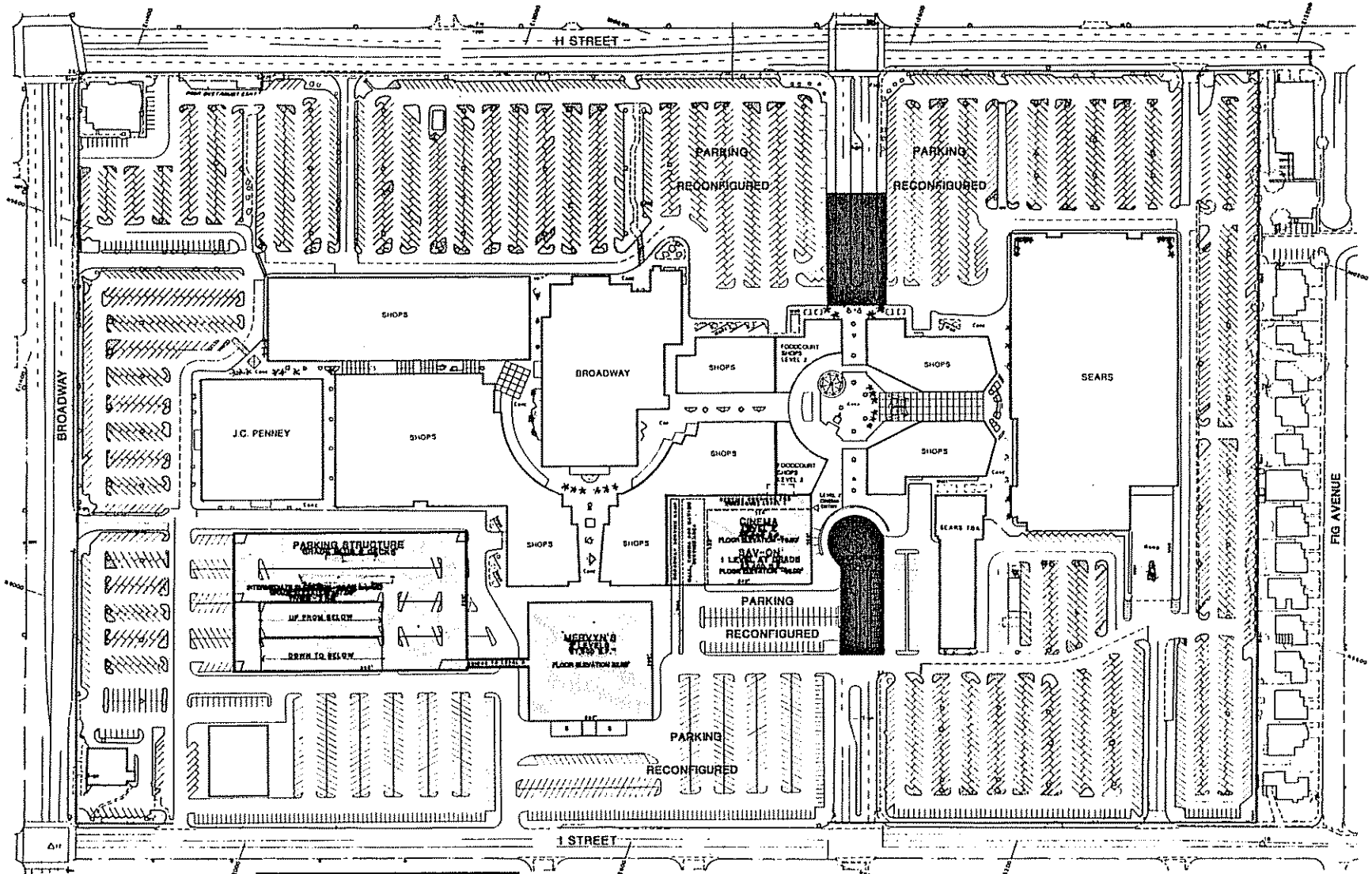

FIGURE 3. PROPOSED SITE PLAN

R-2333E 6/91

The parking lot noise is estimated to be an hourly average (L_{eq}) of 52 dBA fifty feet from the boundary of the lot. In general, traffic on I Street would dominate exterior noise levels at the residences along the south side of the roadway. However, occasionally a car door shutting or conversation may be audible at the residences. These noise events may become more frequent in the evenings due to the presence of the cinema. Noise produced in the proposed parking structure would not significantly impact the residences along I Street.

III. METHODS OF ANALYSIS

There are no specified criteria for traffic noise in the Noise Element of the City of Chula Vista General Plan (City of Chula Vista 1989). However, Chapter 19.68 of the Chula Vista Municipal Code (City of Chula Vista 1984) does cite the list of National Goals for Noise Reduction (EPA 1977). This list states that noise exposure levels should be reduced to at least 65 L_{dn}. As no other value was indicated, the 65 L_{dn} noise level limit was used as the standard to assess noise impacts in the City.

The L_{dn} scale is a 24-hour, cumulative measure of community noise exposure based on an A-weighted noise level in units of decibels. A-weighting is a frequency correction that correlates noise levels with the frequency response of the human hearing system. The L_{dn} adds 10 decibels (dBA) to the average noise levels between 10:00 p.m. and 7:00 a.m. to account for the added sensitivity to noise during the nighttime hours.

The future and existing noise environment along I Street was modeled using a modified version (Minnesota Department of Transportation 1990) of STAMINA 2.0, the Federal Highway Administration (FHWA) computerized highway noise model (FHWA-RD-77-108) with California vehicle noise emission levels (California Department of Transportation [Caltrans] 1983). The computer model calculates hourly average noise levels at selected receiver locations using input parameter estimates such as projected average daily traffic rates; vehicle mix, distribution, and speed; roadway lengths and gradients; distances between sources, barriers, and receivers; and shielding provided by intervening terrain and structures.

The receptors were input as five feet above the ground, the average height of a human ear. The topography of the area is level and I Street is a straight roadway, with no intervening barriers or topography between the residences and the roadway. Receptors were placed 50 feet south of the roadway to simulate locations in the front yards of the residences. Traffic speed was input as 30 miles per hour (mph), the posted speed limit on I Street.

The most recent 24-hour traffic counts for I Street were obtained from the City of Chula Vista Traffic Engineering Department (Wolf, pers. comm., 5/20/91). The existing average daily traffic volumes (ADT) and the day/night distribution of traffic were calculated from these data and used to model the existing noise environment. The most recent count for I Street in this area was taken on April 15, 1991 between Fifth Avenue and Fourth Avenue. The ADT was 10,070 and the distribution was 95.2 percent daytime (7 a.m. to 10 p.m.) traffic and 4.8 percent nighttime (10 p.m. to 7 a.m.) traffic. A count for I Street between Broadway and Fifth Avenue was taken in March of 1990. The ADT for this section of roadway was 7,540, with a traffic distribution of 93.8 percent daytime traffic and 6.2 percent nighttime traffic. Observations of the traffic mix on I

Street were made on May 19, 1991, between 1:40 p.m. and 2:10 p.m. The traffic mix was 98 percent autos, 1.7 percent medium trucks, and 0.3 percent heavy trucks. The truck traffic consisted of delivery trucks for the mall's stores and public transit buses.

The projected future ADT for I Street with and without the project was obtained from the traffic technical report prepared for this project (Linscott, Law and Greenspan, Inc. 1991). The future year used was 1994, the year in which the proposed project is anticipated to be completed. The year 1994 was used because the relative difference between project-generated traffic and projected traffic due to regional growth would be greatest at this time. The percentage increase in traffic volumes due to the project would be much smaller in a horizon year such as 2010 because 2010 traffic would be greater than 1994 traffic. Therefore, any increases in noise levels due to project-generated traffic on I Street would be more noticeable during 1994 than in later years, and would represent the worst-case scenario.

The future (1994) ADT with and without the project is presented in Table 1. Between Broadway and Fifth Avenue, the future traffic on I Street is predicted to be 8,490 ADT without the project and 9,630 ADT with the project. Between Fifth Avenue and Fourth Avenue, the future traffic is predicted to be 11,000 ADT without the project and 11,350 ADT with the project. Because predictions of future traffic mix and day/night distribution are not available, they were assumed to be the same as the existing values. The increase in noise levels which would occur due to project-related increases in traffic on I Street was determined by modeling the projected future traffic with and without the increased volumes attributable to the mall expansion.

I Street was considered as two roadway segments because of the two different ADT values along its length bordering the project site. The first segment extends from Fourth Avenue to Fifth Avenue, and the second segment extends from Fifth Avenue to Broadway.

The STAMINA model output is in average hourly noise levels. To determine the L_{dn}, the STAMINA model was run separately for the daytime average hourly traffic and the nighttime average hourly traffic. The resulting daytime L_{eq} and the weighted nighttime L_{eq} were then combined to obtain the L_{dn}.

Other commercial parking lot noise studies have shown, by field measurements, that noise levels average 52 dBA L_{eq} 50 feet from a parking lot boundary (RECON 1986). Parking lot noise is generated by cars starting and running, doors closing, and conversation. These noise levels were applied to the mall parking lot. Increasing the parking lot size or adding more parking spaces would not appreciably increase the noise levels at the boundary of the lot. Receptors at the boundary of the parking lot would hear noise only from a certain distance into the lot, regardless of the size of the lot. Therefore, 52 dBA L_{eq} was used as both the existing and future average parking lot noise level.

IV. EXISTING NOISE ENVIRONMENT

Existing noise levels produced by traffic on I Street were determined by modeling the existing traffic as described in the Methods of Analysis section. At a distance of 50 feet from the roadway, the daytime L_{eq} was 60 dBA L_{eq} west

TABLE 1
EXISTING, FUTURE, AND FUTURE PLUS PROJECT ADTs ON I STREET

Location	Existing	Future	Future plus Project
I Street--Fourth Avenue to Fifth Avenue	10,070	11,000	11,350
I Street--Fifth Avenue to Broadway	7,540	8,490	9,630

TABLE 1
EXISTING, FUTURE, AND FUTURE PLUS PROJECT ADTs ON I STREET

Location	Existing	Future	Future plus Project
I Street--Fourth Avenue to Fifth Avenue	10,070	11,000	11,350
I Street--Fifth Avenue to Broadway	7,540	8,490	9,630

of Fifth Avenue and 61 dBA L_{eq} east of Fifth Avenue. The nighttime L_{eq} was 50 dBA L_{eq} along the entire length of I Street where it borders the project site. The STAMINA model output files are included as Attachment 1. Combining these daytime and nighttime values results in an existing L_{dn} of 60-61 L_{dn} at 50 feet from I Street.

Noise levels may be greater than 61 dBA L_{dn} along I Street at the intersections of Fourth Avenue, Fifth Avenue, and Broadway where traffic on these roadways contribute to the existing noise environment. In addition, occasional aircraft overflights also contribute to the existing noise levels.

Parking lot noise levels average approximately 52 dBA L_{eq} at 50 feet from the lot (RECON 1986). Noise is generated in the Chula Vista Mall parking lot during its hours of operation. These hours coincide with the daytime hours during which traffic on I Street produces approximately 61 dBA L_{eq}. Because the decibel scale is logarithmic, adding 52 dBA to 61 dBA increases the noise levels by only 0.5 decibel. Therefore, noise produced in the parking lot would not contribute a significant amount to the noise environment at the residences across I Street. Occasionally, car doors closing or conversations in the lot may be heard at the residences.

V. FUTURE ACOUSTICAL CONDITIONS

Future acoustical conditions were determined by modeling the noise from future vehicular traffic on I Street with and without the project-generated traffic as described in the Methods of Analysis section. The future year used in this analysis is 1994, the year in which the project is expected to be completed.

Future (1994) noise levels without project-generated traffic are estimated to be approximately 61 L_{dn} fifty feet from I Street. The increase in traffic along I Street between Broadway and Fifth Avenue would raise the day/night average noise level by 1 dBA over existing levels. The increase in traffic volumes was not enough to raise noise levels along I Street east of Fifth Avenue.

Implementation of the project would increase the traffic volumes along I Street approximately 13 percent between Broadway and Fifth Avenue and 3 percent between Fifth Avenue and Fourth Avenue. These traffic increases would not significantly raise the noise levels projected for 1994. The estimated future (1994) noise levels considering the project would remain at 61 L_{dn}.

The parking lot noise is estimated to be an hourly average of 52 dBA L_{eq} fifty feet from the boundary of the lot. In general, traffic on I Street would dominate exterior noise levels at the residences along the south side of the roadway. However, occasionally a car door closing or conversation may be audible at the residences. These single noise events may occur more frequently during the evening in the future due to the presence of the cinema.

Noise impacts to the residences along I Street from the proposed parking structure are not anticipated to occur. The parking structure would be set back away from the residences' property lines by approximately 310 feet. Any noise produced in the parking structure such as running vehicles, car doors shutting,

or conversations would be further attenuated by the solid walls which would be some fraction of the height between floor and ceiling and would surround the perimeter of each floor.

VI. IMPACTS AND MITIGATION

Increases in traffic volumes on I Street would not result in significant increases in exterior noise levels at the residences along the south side of I Street. The noise levels estimated to be produced by 1994 traffic, including the project, would also be below the 65 L_{dn} standard of the City of Chula Vista.

The increase in parking lot single noise events during the evening due to the presence of the cinema would not be significant because the cinema is set back away from I Street and moviegoers would tend to park as close to the cinema as possible.

As described in the previous section, noise produced in the proposed parking structure would not significantly impact residences along I Street.

Mitigation is not considered necessary.

VIII. REFERENCES CITED

California Department of Transportation
1983 California Vehicle Noise Emission Levels. Report No. FHWA/CA/TL-84/13.August.

Chula Vista, City of
1984 Municipal Code. Chapter 19.68 - Performance Standards and Noise Control.

1989 General Plan. Noise Element.

Environmental Protection Agency
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Federal Highway Administration
1979 FHWA Highway Traffic Noise Prediction Model. Report No. FHWA-RD-77-108, Federal Highway Administration, Washington, D.C. February.

Linscott, Law and Greenspan, Inc.
1991 Traffic Impacts Analysis for the Chula Vista Mall Expansion Project. June.

Minnesota Department of Transportation
1990 STAMINA 2.0 Modified for Use on a Personal Computer and Modified for Grade Effects. November.

RECON
1986 Noise Analysis for the Highway 101 Parking Lot. April.

ATTACHMENT 1

1 STAMINA 2.0/BCR
FHWA VERSION (MARCH 1982)
TRAFFIC NOISE PREDICTION MODEL
DEVELOPED UNDER CONTRACT BY BBN

(INPUT UNITS- E I, OUTPUT UNITS- E D)

MODIFIED BY THE MINNESOTA DEPT. OF TRANSPORTATION
FOR OPERATION ON A MS-DOS PERSONAL COMPUTER, 1985
MODIFIED BY THE MINNESOTA DEPT. OF TRANSPORTATION
TO ALLOW VEH6 TO BE MODIFIED FOR GRADE NOV 1990

Chula Vista Mall 5/22/91 DAYTIME existing hourly traffic 30MPH
0PROGRAM INITIALIZATION PARAMETERS

```
      HEIGHT        CODE            DESCRIPTION
                                    R                    A          N
        .00           1                                             N
       1.00           2             A         E                     S
        .00           3             H         D          T          A          C
       8.00           4             H         D          T          D          K
       2.30           5             H         D          T          P          C
       .000           6             H         D          T                     C        H   'CAL CARS'
                            C0 =         5.20   C1 =          38.80   S0 =          .00
      2.300           7             H         D          T          P          C        H   'CAL MT'
                            C0 =        35.30   C1 =          25.60   S0 =          .00
      8.000           8             H         D          T          P          C        H   'CAL HT'
                            C0 =        50.40   C1 =          19.20   S0 =          .00
```

0ROADWAY 1 I STREET - Fourth Ave. to Fifth Ave.

VEHICLE TYPE	VEHICLES/HOUR	SPEED
VEH4	623.	30.
VEH5	11.	30.
VEH6	2.	30.

0 ——————COORDINATES——————

	X	Y	Z	GRADE
R1	1.	1.	0.	0
R2	800.	1.	0.	0

0ROADWAY 2 I STREET - Fifth Ave. to Broadway

VEHICLE TYPE	VEHICLES/HOUR	SPEED
VEH4	462.	30.
VEH5	8.	30.
VEH6	1.	30.

0 ——————COORDINATES——————

	X	Y	Z	GRADE
R3	800.	1.	0.	0
R4	2080.	1.	0.	0

1RECEIVERS (X=NO OF REC.)

0 ——————COORDINATES——————

	X	Y	Z
R1	600.	51.	5.
R2	1000.	51.	5.
R3	1500.	51.	5.

1 ALPHA FACTORS - ROADWAY ACROSS,RECEIVER DOWN

```
1 * .0 .0
2 * .0 .0
3 * .0 .0
```

1 SHIELDING FACTORS - ROADWAY ACROSS,RECEIVER DOWN

```
1 * .0 .0
2 * .0 .0
3 * .0 .0
```

1Chula Vista Mall 5/22/91 DAYTIME existing hourly traffic 30MPH

0RECEIVER	LEQ(H)	SIG	L10	L50	L90
R1	61.4	5.7	65.0	57.7	50.4
R2	60.2	5.7	63.7	56.4	49.0
R3	60.0	5.8	63.8	56.2	48.7

1 STAMINA 2.0/BCR
FHWA VERSION (MARCH 1982)
TRAFFIC NOISE PREDICTION MODEL
DEVELOPED UNDER CONTRACT BY BBN

1 STAMINA 2.0/BCR
FHWA VERSION (MARCH 1982)
TRAFFIC NOISE PREDICTION MODEL
DEVELOPED UNDER CONTRACT BY BBN

(INPUT UNITS- E I, OUTPUT UNITS- E I)

MODIFIED BY THE MINNESOTA DEPT. OF TRANSPORTATION
FOR OPERATION ON A MS-DOS PERSONAL COMPUTER, 1985
MODIFIED BY THE MINNESOTA DEPT. OF TRANSPORTATION
TO ALLOW VEH6 TO BE MODIFIED FOR GRADE NOV 1990

Chula Vista Mall 5/22/91 NIGHTIME existing hourly traffic 30MPH
OPROGRAM INITIALIZATION PARAMETERS

HEIGHT	CODE	DESCRIPTION								
.00	1	R			A		N			
1.00	2	A		E			N			
.00	3	H		D		T		S		C
8.00	4	H		D		T		A		K
2.30	5	H		D		T		D		C
.000	6	H		D		T		P	C	H 'CAL CARS'
		C0 =	5.20	C1 =	38.80	S0 =	.00			
2.300	7	H		D		T		P	C	H 'CAL MT'
		C0 =	35.30	C1 =	25.60	S0 =	.00			
8.000	8	H		D		T		P	C	H 'CAL HT'
		C0 =	50.40	C1 =	19.20	S0 =	.00			

OROADWAY 1 I STREET - Fourth Ave. to Fifth Ave.

	VEHICLE TYPE	VEHICLES/HOUR	SPEED
	VEH4	53.	30.
	VEH5	1.	30.
	VEH6	0.	30.

0 ----------COORDINATES----------

	X	Y	Z	GRADE
R1	1.	1.	0.	0
R2	800.	1.	0.	0

OROADWAY 2 I STREET - Fifth Ave. to Broadway

	VEHICLE TYPE	VEHICLES/HOUR	SPEED
	VEH4	51.	30.
	VEH5	1.	30.
	VEH6	0.	30.

0 ----------COORDINATES----------

	X	Y	Z	GRADE
R3	800.	1.	0.	0
R4	2080.	1.	0.	0

1RECEIVERS (X=NO OF REC.)
0 ----------COORDINATES----------

	X	Y	Z
R1	600.	51.	5.
R2	1000.	51.	5.
R3	1500.	51.	5.

1 ALPHA FACTORS - ROADWAY ACROSS,RECEIVER DOWN

1 * .0 .0
2 * .0 .0
3 * .0 .0

1 SHIELDING FACTORS - ROADWAY ACROSS,RECEIVER DOWN

1 * .0 .0
2 * .0 .0
3 * .0 .0

1Chula Vista Mall 5/22/91 NIGHTIME existing hourly traffic 30MPH
ORECEIVER LEQ(H) SIG L10 L50 L90

R1	50.4	7.8	53.3	43.3	33.3
R2	50.3	7.9	53.2	43.2	33.1
R3	50.2	7.9	53.2	43.1	33.0

1 STAMINA 2.0/BCR
FHWA VERSION (MARCH 1982)
TRAFFIC NOISE PREDICTION MODEL
DEVELOPED UNDER CONTRACT BY BBN

1 STAMINA 2.0/BCR
FHWA VERSION (MARCH 1982)
TRAFFIC NOISE PREDICTION MODEL
DEVELOPED UNDER CONTRACT BY BBN

(INPUT UNITS- E I, OUTPUT UNITS- E I)

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FOR OPERATION ON A MS-DOS PERSONAL COMPUTER, 1985
MODIFIED BY THE MINNESOTA DEPT. OF TRANSPORTATION
TO ALLOW VEH6 TO BE MODIFIED FOR GRADE NOV 1990

Chula Vista Mall 5/30/91 NIGHT 1994 w/out project traffic 30MPH
OPROGRAM INITIALIZATION PARAMETERS

HEIGHT	CODE	DESCRIPTION								
.00	1	R			A		N			
1.00	2	A		E			N			
.00	3	H		D		T	S		C	
8.00	4	H		D		T	A		K	
2.30	5	H		D		T	D		C	
.000	6	H		D		T	P		C	H 'CAL CARS'
		C0 =	5.20	C1 =	38.80	S0 =	.00			
2.300	7	H		D		T	P		C	H 'CAL MT'
		C0 =	35.30	C1 =	25.60	S0 =	.00			
8.000	8	H		D		T	P		C	H 'CAL HT'
		C0 =	50.40	C1 =	19.20	S0 =	.00			

OROADWAY 1 I STREET - Fourth Ave. to Fifth Ave.

	VEHICLE TYPE	VEHICLES/HOUR	SPEED
	VEH4	57.	30.
	VEH5	1.	30.
	VEH6	0.	30.

0 ----------COORDINATES----------

	X	Y	Z	GRADE
R1	1.	1.	0.	0
R2	800.	1.	0.	0

OROADWAY 2 I STREET - Fifth Ave. to Broadway

	VEHICLE TYPE	VEHICLES/HOUR	SPEED
	VEH4	57.	30.
	VEH5	1.	30.
	VEH6	0.	30.

0 ----------COORDINATES----------

	X	Y	Z	GRADE
R3	800.	1.	0.	0
R4	2080.	1.	0.	0

1RECEIVERS (X=NO OF REC.)

0 ----------COORDINATES----------

	X	Y	Z
R1	600.	51.	5.
R2	1000.	51.	5.
R3	1500.	51.	5.

1 ALPHA FACTORS - ROADWAY ACROSS,RECEIVER DOWN

1 * .0 .0
2 * .0 .0
3 * .0 .0

1 SHIELDING FACTORS - ROADWAY ACROSS,RECEIVER DOWN

1 * .0 .0
2 * .0 .0
3 * .0 .0

1Chula Vista Mall 5/30/91 NIGHT 1994 w/out project traffic 30MPH

ORECEIVER	LEQ(H)	SIG	L10	L50	L90
R1	50.6	7.7	53.7	43.8	34.0
R2	50.7	7.7	53.7	43.9	34.1
R3	50.6	7.7	53.7	43.8	34.0

1 STAMINA 2.0/BCR
FHWA VERSION (MARCH 1982)
TRAFFIC NOISE PREDICTION MODEL
DEVELOPED UNDER CONTRACT BY BBN

1 STAMINA 2.0/BCR
FHWA VERSION (MARCH 1982)
TRAFFIC NOISE PREDICTION MODEL
DEVELOPED UNDER CONTRACT BY BBN

(INPUT UNITS- E I. OUTPUT UNITS- E I)

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MODIFIED BY THE MINNESOTA DEPT. OF TRANSPORTATION
TO ALLOW VEH6 TO BE MODIFIED FOR GRADE NOV 1990

Chula Vista Mall 5/30/91 DAYTIME 1994 w/out project traffic 30MPH
0PROGRAM INITIALIZATION PARAMETERS

HEIGHT	CODE	DESCRIPTION								
.00	1	R		A	N					
1.00	2	A	E		N					
.00	3	H	D	T	S	C				
8.00	4	H	D	T	A	K				
2.30	5	H	D	T	D	C				
.000	6	H	D	T	P	C	H	'CAL CARS'		
		C0 =	5.20	C1 =	38.80	S0 =	.00			
2.300	7	H	D	T	P	C	H	'CAL MT'		
		C0 =	35.30	C1 =	25.60	S0 =	.00			
8.000	8	H	D	T	P	C	H	'CAL HT'		
		C0 =	50.40	C1 =	19.20	S0 =	.00			

0ROADWAY 1 I STREET - Fourth Ave. to Fifth Ave.

VEHICLE TYPE	VEHICLES/HOUR	SPEED
VEH4	684.	30.
VEH5	12.	30.
VEH6	2.	30.

0 ----------COORDINATES----------

	X	Y	Z	GRADE
R1	1.	1.	0.	0
R2	800.	1.	0.	0

0ROADWAY 2 I STREET - Fifth Ave. to Broadway

VEHICLE TYPE	VEHICLES/HOUR	SPEED
VEH4	520.	30.
VEH5	9.	30.
VEH6	1.	30.

0 ----------COORDINATES----------

	X	Y	Z	GRADE
R3	800.	1.	0.	0
R4	2080.	1.	0.	0

1RECEIVERS (X=NO OF REC.)

0 ----------COORDINATES----------

	X	Y	Z
R1	600.	51.	5.
R2	1000.	51.	5.
R3	1500.	51.	5.

1 ALPHA FACTORS - ROADWAY ACROSS,RECEIVER DOWN

1 * .0 .0
2 * .0 .0
3 * .0 .0

1 SHIELDING FACTORS - ROADWAY ACROSS,RECEIVER DOWN

1 * .0 .0
2 * .0 .0
3 * .0 .0

1Chula Vista Mall 5/30/91 DAYTIME 1994 w/out project traffic 30MPH
0RECEIVER LEQ(H) SIG L10 L50 L90

R1	61.8	5.5	65.3	58.3	51.2
R2	60.6	5.5	64.2	57.1	50.0
R3	60.5	5.6	64.1	56.9	49.8

1 STAMINA 2.0/BCR
FHWA VERSION (MARCH 1982)
TRAFFIC NOISE PREDICTION MODEL
DEVELOPED UNDER CONTRACT BY BBN

1 STAMINA 2.0/BCR
FHWA VERSION (MARCH 1982)
TRAFFIC NOISE PREDICTION MODEL
DEVELOPED UNDER CONTRACT BY BBN

(INPUT UNITS- E I, OUTPUT UNITS- E I)

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FOR OPERATION ON A MS-DOS PERSONAL COMPUTER, 1985
MODIFIED BY THE MINNESOTA DEPT. OF TRANSPORTATION
TO ALLOW VEH6 TO BE MODIFIED FOR GRADE NOV 1990

Chula Vista Mall 5/30/91 DAYTIME 1994 with project traffic 30MPH
OPROGRAM INITIALIZATION PARAMETERS

HEIGHT	CODE	DESCRIPTION							
.00	1	R		A	N				
1.00	2	A	E		N				
.00	3	H	D	T	S		C		
8.00	4	H	D	T	A		K		
2.30	5	H	D	T	D		C		
.000	6	H	D	T	P		C	H	'CAL CARS'
		C0 =	5.20	C1 =	38.80	S0 =		.00	
2.300	7	H	D	T	P		C	H	'CAL MT'
		C0 =	35.30	C1 =	25.60	S0 =		.00	
8.000	8	H	D	T	P		C	H	'CAL HT'
		C0 =	50.40	C1 =	19.20	S0 =		.00	

OROADWAY 1 I STREET - Fourth Ave. to Fifth Ave.

VEHICLE TYPE	VEHICLES/HOUR	SPEED
VEH4	706.	30.
VEH5	12.	30.
VEH6	2.	30.

0

	COORDINATES			
	X	Y	Z	GRADE
R1	1.	1.	0.	0
R2	800.	1.	0.	0

OROADWAY 2 I STREET - Fifth Ave. to Broadway

VEHICLE TYPE	VEHICLES/HOUR	SPEED
VEH4	590.	30.
VEH5	10.	30.
VEH6	2.	30.

0

	COORDINATES			
	X	Y	Z	GRADE
R3	800.	1.	0.	0
R4	2080.	1.	0.	0

1RECEIVERS (X=NO OF REC.)
0

	COORDINATES		
	X	Y	Z
R1	600.	51.	5.
R2	1000.	51.	5.
R3	1500.	51.	5.

1 ALPHA FACTORS - ROADWAY ACROSS,RECEIVER DOWN

1 * .0 .0
2 * .0 .0
3 * .0 .0

1 SHIELDING FACTORS - ROADWAY ACROSS,RECEIVER DOWN

1 * .0 .0
2 * .0 .0
3 * .0 .0

1Chula Vista Mall 5/30/91 DAYTIME 1994 with project traffic 30MPH
ORECEIVER LEQ(H) SIG L10 L50 L90

R1	61.9	5.4	65.5	58.5	51.6
R2	61.3	5.7	64.9	57.6	50.3
R3	61.3	5.8	64.8	57.5	50.1

1 STAMINA 2.0/BCR
FHWA VERSION (MARCH 1982)
TRAFFIC NOISE PREDICTION MODEL
DEVELOPED UNDER CONTRACT BY BBN

1 STAMINA 2.0/BCR
FHWA VERSION (MARCH 1982)
TRAFFIC NOISE PREDICTION MODEL
DEVELOPED UNDER CONTRACT BY BBN

(INPUT UNITS- E I. OUTPUT UNITS- E I)

MODIFIED BY THE MINNESOTA DEPT. OF TRANSPORTATION
FOR OPERATION ON A MS-DOS PERSONAL COMPUTER, 1985
MODIFIED BY THE MINNESOTA DEPT. OF TRANSPORTATION
TO ALLOW VEH6 TO BE MODIFIED FOR GRADE NOV 1990

Chula Vista Mall 5/30/91 NIGHTIME 1994 with project traffic 30MPH
OPROGRAM INITIALIZATION PARAMETERS

HEIGHT	CODE	DESCRIPTION								
.00	1	R		A		N				
1.00	2	A	E			N				
.00	3	H	D	T		S		C		
8.00	4	H	D	T		A		K		
2.30	5	H	D	T		D		C		
.000	6	H	D	T		P		C	H	'CAL CARS'
		C0 =	5.20	C1 =	38.80	S0 =	.00			
2.300	7	H	D	T		P		C	H	'CAL MT'
		C0 =	35.30	C1 =	25.60	S0 =	.00			
8.000	8	H	D	T		P		C	H	'CAL HT'
		C0 =	50.40	C1 =	19.20	S0 =	.00			

OROADWAY 1 I STREET - Fourth Ave. to Fifth Ave.

VEHICLE TYPE	VEHICLES/HOUR	SPEED
VEH4	59.	30.
VEH5	1.	30.
VEH6	0.	30.

0 ----------COORDINATES----------

	X	Y	Z	GRADE
R1	1.	1.	0.	0
R2	800.	1.	0.	0

OROADWAY 2 I STREET - Fifth Ave. to Broadway

VEHICLE TYPE	VEHICLES/HOUR	SPEED
VEH4	65.	30.
VEH5	1.	30.
VEH6	0.	30.

0 ----------COORDINATES----------

	X	Y	Z	GRADE
R3	800.	1.	0.	0
R4	2080.	1.	0.	0

1RECEIVERS (X=NO OF REC.)

0 ----------COORDINATES----------

	X	Y	Z
R1	600.	51.	5.
R2	1000.	51.	5.
R3	1500.	51.	5.

1 ALPHA FACTORS - ROADWAY ACROSS,RECEIVER DOWN

1 * .0 .0
2 * .0 .0
3 * .0 .0

1 SHIELDING FACTORS - ROADWAY ACROSS,RECEIVER DOWN

1 * .0 .0
2 * .0 .0
3 * .0 .0

1Chula Vista Mall 5/30/91 NIGHTIME 1994 with project traffic 30MPH
ORECEIVER LEQ(H) SIG L10 L50 L90

R1	50.8	7.6	53.9	44.1	34.3
R2	51.1	7.5	54.3	44.7	35.1
R3	51.1	7.5	54.2	44.7	35.1

1 STAMINA 2.0/BCR
FHWA VERSION (MARCH 1982)
TRAFFIC NOISE PREDICTION MODEL
DEVELOPED UNDER CONTRACT BY BBN

APPENDIX E

HAZARDOUS WASTE STUDY
FOR
THE CHULA VISTA MALL
EXPANSION PROJECT

Prepared for

CITY OF CHULA VISTA
276 FOURTH AVENUE
CHULA VISTA, CA 91910

Prepared by

RECON
Regional Environmental Consultants
7460 Mission Valley Road, San Diego, CA 92108 (619) 542-1611

RECON NUMBER 2333E
JUNE 24, 1991

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III.	SITE HISTORY	5
IV.	SUMMARY OF ASBESTOS SURVEY	6
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VI.	SUMMARY AND CONCLUSIONS	10
VII.	PERSONS AND AGENCIES CONSULTED	11
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ATTACHMENT

1: Building Survey Report for Asbestos-Containing Materials for the Chula Vista Shopping Center Complex

FIGURES

1: Location of project in relation to the county of San Diego 2
2: Location of project in relation to Chula Vista street system 3

I. INTRODUCTION

This report is a study of past and present hazardous waste use, generation, and storage located on the subject property being considered for redevelopment by the City of Chula Vista and the Homart Development Corporation. The project site is located in the city of Chula Vista in the county of San Diego (Figure 1). The 55-acre site is the existing Chula Vista Shopping Center located in the city of Chula Vista between H and I Streets east of Broadway (Figure 2).

An environmental impact report (EIR) is being prepared for the subject property. This study was conducted in response to the scoping letter prepared by the City of Chula Vista identifying issues which need to be addressed in the EIR for the project. The scoping letter, dated March 11, 1991, identified the potential for hazardous waste impacts in relation to the vacant J.C. Penney Automotive Center and the documented existence of asbestos in the buildings proposed to be demolished.

The proposed project is the second phase of redevelopment of the site as part of the Town Centre II Redevelopment Plan of the City of Chula Vista. The first phase of redevelopment occurred in 1987-1988 and consisted of closing off Fifth Avenue through the site and joining the Sears, Broadway, and Penney's department stores with a new, open air mall. A residence and boys club were also removed from the southeastern part of the site as part of the redevelopment. The proposed expansion of the site in the current project would include the construction of three new buildings on the south side of the mall; a department store, a building containing a drugstore and cinema, and a two-story parking garage. The proposed redevelopment project also includes the demolition of an existing building containing a drugstore, a vacant supermarket, a bank, and other small retail shops. This building is located on the southern periphery of the project site, east of the Olive Garden restaurant. The presently vacant J.C. Penney Automotive Center may also be demolished as part of this project.

The potential existence of hazardous waste associated with the buildings proposed to be demolished was addressed in relation to public safety issues. Research was conducted through records review, interviews, and visual observations. The following items are addressed in this report:

- Description of the history of on-site land uses based on the oral history from the present owner.
- Review of aerial photographs for visual indications of waste disposal sites or treatment facilities, impoundments, waste piles, or landfills.
- Review of records for presence of federal or state superfund sites or Resource Conservation Recovery Act (RCRA) sites currently under investigation on the subject property.
- Review of records for presence of Leaking Underground Storage Tanks (LUSTs) or air emission sources on the subject property.
- Visual survey to identify the location of evident or visible on-site storage or disposal facilities including above or underground tanks,

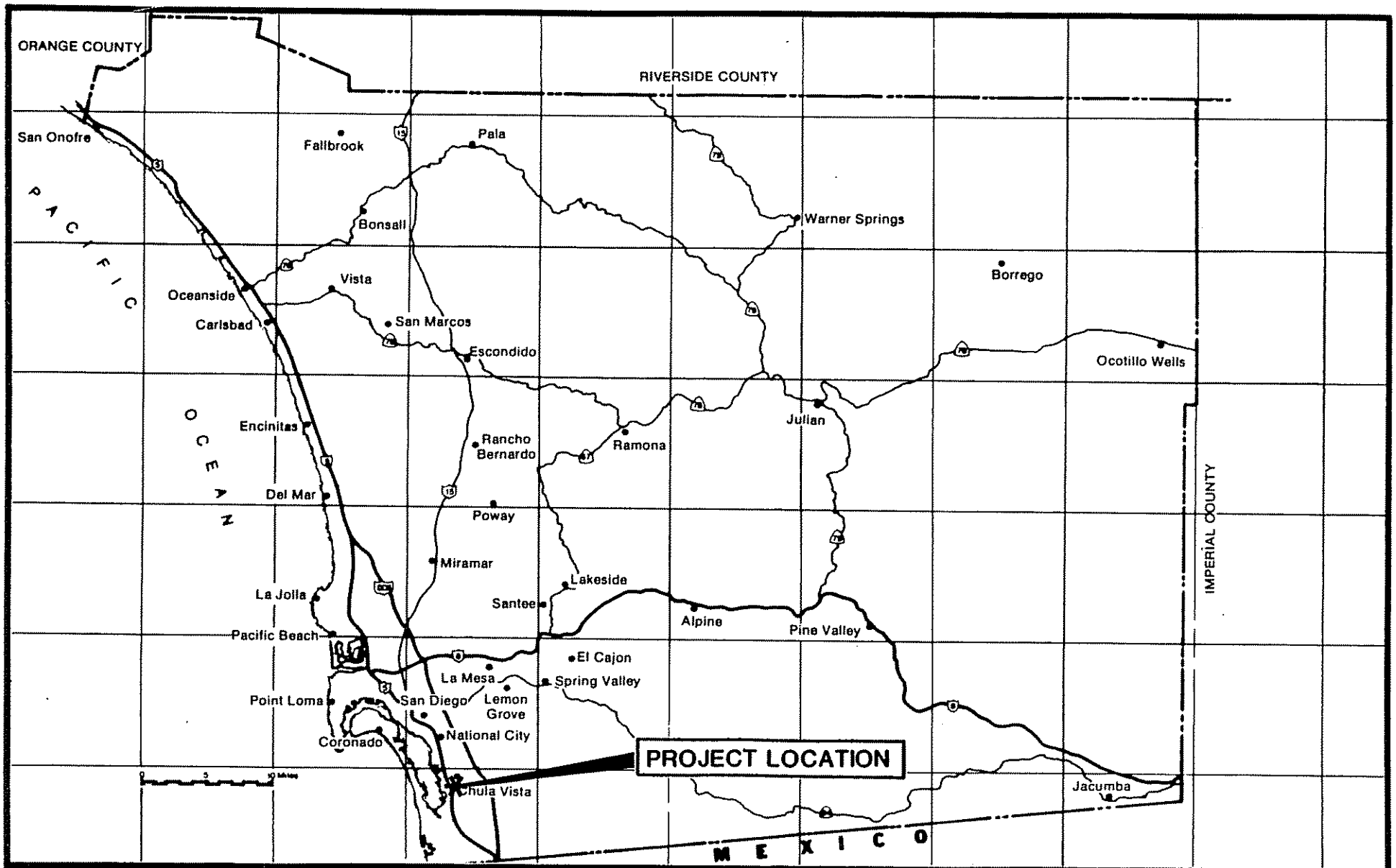

FIGURE 1. THE LOCATION OF THE PROPOSED PROJECT RELATIVE TO THE COUNTY OF SAN DIEGO.

RECON

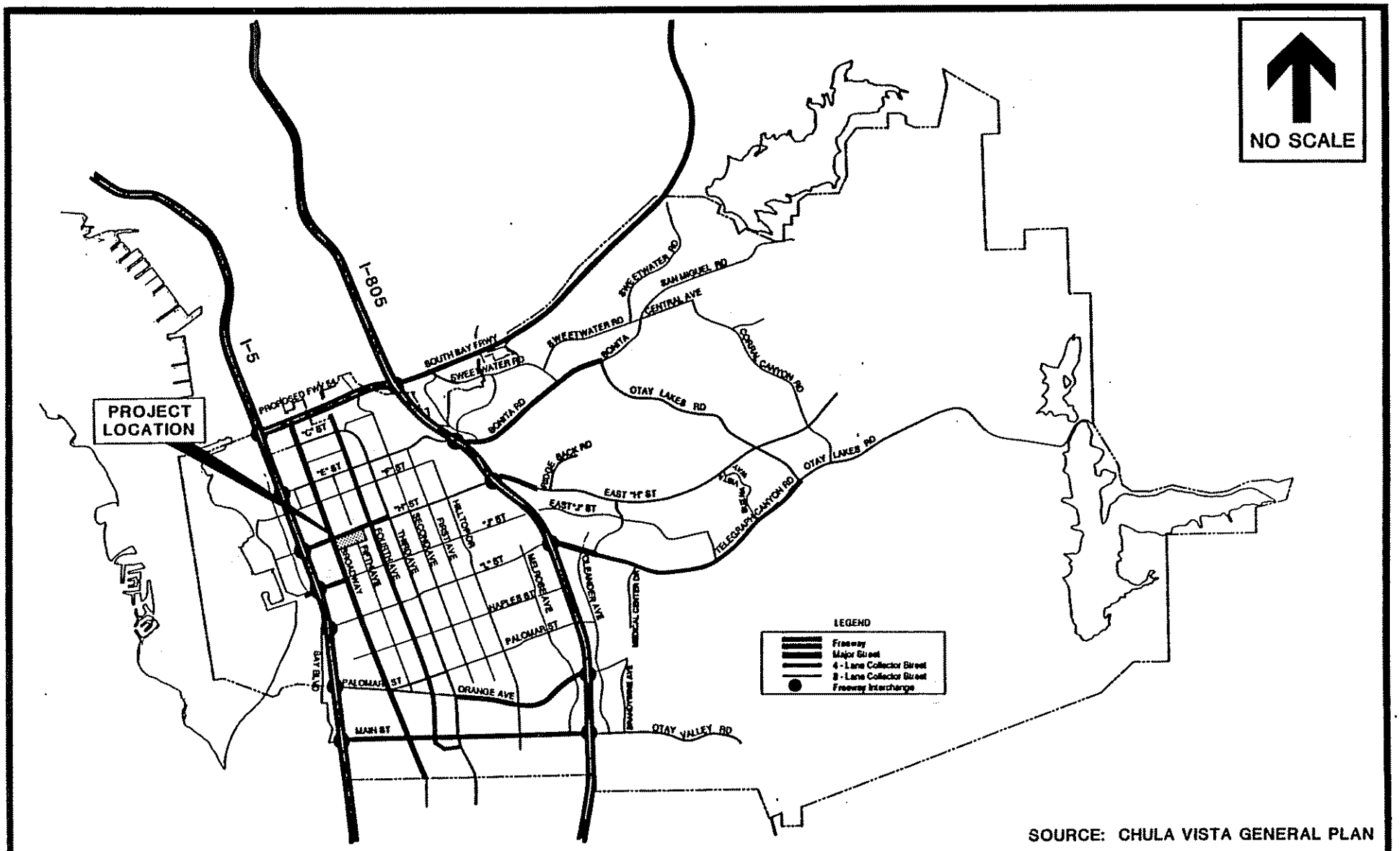

FIGURE 2. PROJECT LOCATION IN RELATION TO CHULA VISTA STREET NETWORK

drums, impoundments, waste piles, landfills; on-site treatment facilities which handle wastewater, solid waste, or hazardous materials; and any processes which have the potential for discharge of harmful waste materials.

- Determination of the polychlorinated biphenyls (PCB) status of electric transformers in service on-site.

- Review and description of survey for friable asbestos-containing materials conducted by Letco Associates, Inc. in the buildings proposed to be demolished.

- Summary of the investigation activities conducted, the information gathered, and comments and findings regarding the subject property and public safety.

II. DESCRIPTION OF SITE

The site is presently occupied by the Chula Vista Shopping Center. The center is comprised of: (1) a main mall area with Sears, Broadway, and Penney's as the anchor stores, (2) a Sears Auto Center adjacent to the Sears store, (3) an Allie's restaurant in the northwest corner of the site, (4) a Burger King in the southwest corner of the site, (5) an Olive Garden restaurant just east of the Burger King, (6) the building containing the drugstore proposed to be demolished, and (7) the vacant Penney's auto center. The areas surrounding the buildings are primarily paved parking lots, with some areas of landscaping.

RECON conducted a walk-over visual survey of the site on June 6, 1991. The property was surveyed to identify the location of evident or visible on-site storage or disposal facilities, treatment facilities, any processes which have the potential for discharge of harmful waste materials, and electric transformers.

Except for water run-off stains from the landscaped areas and oil stains in the parking lot, no unusual stain or discoloration was found on the surface of the site. The oil stains were due to leaks from parked cars, and are typical in parking lots.

A directory of the shops on the site was obtained and two businesses were identified as typically using or storing hazardous materials. An operational dry cleaners is located on the east side of the building proposed to be demolished. No unusual stains or leak were observed in the area outside the front and south side of the store. The north and west sides of the shop were interior walls of the building. The exterior of the Sears Tire, Auto, and Battery Center appeared to be well-maintained. A storage shed is located across from the main service center, which was observed to contain 55 gallon drums. From a view outside of the shed, the drums appeared to be in good condition. Approximately one to two gallons of milky-white liquid and a green gelatinous substance were found in the eastern end of a planter located along the southern wall of the Sears Auto Center. The liquid could possibly have been spent radiator fluid. Upon return to the planter an hour later, the level of liquid in the planter had decreased by about one-half. There was no evidence that the presence of this substance was a regular occurrence, nor were there any indications as to who placed the substance in the planter.

The site was surveyed for electric transformers in order to determine the potential for the presence of PCBs. Eight large electrical boxes were observed on the site and their serial numbers recorded. All of the boxes were in good condition, with no evidence of corrosion or leakage. Two of these boxes were indicated as being electric transformers on the A.L.T.A. Survey done on the site in March of 1991 by William A. Steen and Associates. The Environmental Division of San Diego Gas and Electric (SDG&E) was contacted June 7, 1991 regarding the status of these electrical boxes (Brull, SDG&E, 6/7/91). Mr. Brull indicated that two extensive surveys of all of SDG&E's field equipment were conducted in the 1980s to identify and replace all PCB-containing equipment. It is very unlikely, therefore, that the boxes located on, and even near, the project site contain any PCBs.

III. SITE HISTORY

A. ORAL HISTORY FROM OWNER

RECON met with the Chula Vista Center manager and a Homart Development Corporation representative on June 11, 1991 to discuss past and present land uses on the project site. They indicated that, with the exception of three auto centers (Penney, Sears, and Broadway), all other uses on the site are, and have been, strictly retail since the property became a commercial center in the 1960s. They stated that they did not have any personal knowledge of hazardous waste sites on the property, except for unresolved issues concerning the vacant Penney Automotive Center. As part of the first phase of redevelopment of the project site, a Sears gas station and the Broadway Automotive Center were removed. Neither the manager nor the Homart representative knew of any present hazardous waste problems associated with the demolition of these structures. The mall was expanded in 1987 over the past site of the Broadway Automotive Center. Therefore, it is unlikely that there are any outstanding hazardous waste issues existing in regards to this building.

B. AERIAL PHOTOGRAPHY REVIEW

RECON accessed the collection of aerial photographs belonging to the Aerial Photobank of San Diego on June 5, 1991. The photographs were reviewed for visual indications of waste disposal or storage facilities, treatment facilities, waste piles, or landfills. The earliest photograph available was one taken in 1953. There is more than a decade-long gap until the next photograph taken in 1964. From 1964 on, photographs were available for at least one date in every year until the present.

The photograph taken in 1953 shows two residential developments located on the site. One development comprised the area of the site west of Fifth Avenue and looked like an apartment complex. The other development, located east of Fifth Avenue, was an apartment complex characterized by long, straight buildings in rows. Ben Richardson, the Chula Vista Center manager, stated that these buildings were Navy housing (Richardson, Chula Vista Center, 6/11/91). He did not know what the uses of the site were prior to the Navy housing. Also, in the northern portion of the site east of Fifth Avenue there can be seen a larger building with a parking lot. This could be an office building or commercial center of some kind. A drainage ditch runs east/west through the site a little to the north of the center of the site. This drainage could be the easement

deeded to the Kimball Brothers Water Company for the construction and maintenance of flumes, canals, or aqueducts recorded on June 9, 1869, which was indicated in the notes on the A.L.T.A survey done for the current project (William A. Steen and Associates 1991).

By June of 1965, the commercial or office building east of Fifth Avenue in the northern section of the property had been removed and the photograph shows the Sears department store and auto center under construction and the drainage filled in. The Boys Club and residence to the south are still there. The western half of the site does not show any changes. The photo also shows that the surrounding lands are residential to the south and east and commercial to the west, as they are today. Adjacent to the northern border east of Fifth Avenue is an agricultural field. West of Fifth Avenue are residences and a commercial area on the corner of H Street and Broadway.

By November of 1965, the Sears buildings look complete, with most of the parking lot paved. Next to the Sears auto center there is a small gas station, possibly part of Sears. The rest of the site is unchanged from the June, 1965 photograph. In the next photo, dated September, 1966, there are no changes to the site other than completion of the paving around the Sears facilities. By June of 1967, a new building (now the renovated Olive Garden restaurant) had been erected on the site.

A photograph taken on July 17, 1968 shows the agricultural field north of the site and east of Fifth Avenue graded with construction of a large building underway.

Between 1968 and 1987, the only other change to the site is the erection of a restaurant on the corner of H Street and Broadway (now Allie's). In 1987, the first phase of redevelopment began on the site, as described in the previous paragraphs.

IV. REVIEW OF ASBESTOS SURVEY

A building survey for asbestos was conducted by Letco and Associates, Inc. in April of 1987 (Letco and Associates 1987). The survey included a visual inspection, sampling and laboratory analysis of suspect asbestos-containing materials, and a limited visual assessment of potentially hazardous materials. This survey has been included in this report as Attachment 1.

Ten buildings were included in this 1987 survey. This audit includes a description of the methods and procedures employed in the survey and a summary of the findings from the two buildings proposed to be demolished as part of the expansion project.

Asbestos is a general term which refers to a class of natural mineral silicates which are separable into fibers. Asbestos-containing materials are classified as friable or non-friable. Friable materials are materials which are easily crumbled or pulverized. The most common asbestos mineral is chrysotile asbestos which comes from serpentine rock. Because the fibers are very small, they can remain airborne for long periods of time and can be inhaled easily. Exposure to asbestos fibers has been shown to cause asbestosis and malignancies of the lung and other organs (Environmental Protection Agency [EPA] 1979).

A. SURVEY METHODS

The survey for friable buildings materials suspected to contain asbestos included a visual inspection of retail spaces, storage areas, electrical vaults, mechanical rooms, ventilation systems, areas overhead and above suspended ceilings, and roofing components.

Bulk samples of friable and non-friable materials were taken from acoustical ceiling tiles, pipe wrap insulations, fireproofing, and other building materials throughout the structures. These samples were analyzed using Polarized Light Microscopy (PLM) coupled with dispersion staining as described in the EPA's document titled "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (1982).

In conjunction with material sampling, a limited visual survey was performed to assess potential hazards within the various buildings. The only area observed as a potential hazard was the boiler room of Perma Clean, where cleaning supplies and other items were stored.

B. RESULTS OF SURVEY

The large building containing the drugstore, bank, and vacant supermarket space was divided into three areas in the asbestos survey. The first area is the supermarket and drugstore, to the west is the second area containing the bank, and the third area is the remaining retail spaces to the east of the first area. A list of the rooms and materials tested in each area of the building and whether asbestos was contained in the samples is contained in tables in the asbestos survey included in this report as Attachment 1.

In the vacant supermarket, the white floor tile in the restrooms was found to contain less than one percent chrysotile asbestos in a non-friable form. In the drug store, the spray-applied ceiling texture located in the second-floor office and in the storefront was found to contain five and ten percent chrysotile asbestos, respectively. The asbestos-containing materials were observed to be in fair condition.

In the bank area of the building, samples from pipe insulation and floor tile were found to contain asbestos. The sample of pipe insulation was taken from the HVAC room on the second floor. This insulation was located on the straight runs of the pipes and was found to contain five percent chrysotile asbestos and forty percent amosite asbestos. No insulation was evident at the valves, tees, or elbows. Floor tile in the ready teller area of the bank was found to contain less than one percent chrysotile asbestos in a non-friable form.

The third area of the building contains seven retail spaces. No asbestos was found in the materials sampled from the Merchant Association Office, the Coin Laundry, or Perma Clean dry cleaners. White nine-inch by nine-inch floor tile in Hank and Paul's Barbershop was found to contain less than one percent chrysotile asbestos, while the one-foot by one-foot beige floor tile was free of asbestos. Spray-applied ceiling texture throughout the Natural Foods store was found to contain three percent chrysotile asbestos. This ceiling texture exhibited signs of delamination at the diffusers and grills in the ceiling. Insulation around the elbows of two pipes near a hot water tank in Winchell's

Donuts were found to contain fifteen percent chrysotile asbestos in poor condition. Three areas in Sonya's Hairstylist were found to contain asbestos. The spray-applied ceiling was in poor condition and contained five percent chrysotile asbestos, the elbow pipe insulation on the hot water heater was in poor condition and contained three percent chrysotile asbestos, and the brown nine-inch by nine-inch floor tile contained less than one percent chrysotile asbestos in a non-friable form.

The vacant J.C. Penney Automotive Center was divided into three sections: a storage area, garage area, and the storefront area. The ceiling throughout the building was tested and did not contain asbestos. The storage and garage areas had concrete slabs for floors. The blue tile in the store front contained less than one percent chrysotile asbestos and the white tile in the store front contained about one percent chrysotile asbestos.

C. REMOVAL METHODS

Removal of asbestos from the buildings proposed to be demolished must conform to the regulations specified by the National Emissions Standards for Hazardous Air Pollutants (NESHAP) and by the California Occupational Safety and Health Agency (CAL-OSHA). The CAL-OSHA standards are promulgated in California Title 8, Chapter 4, Section 5209. These regulations generally follow the federal standards found in 40CFR 1926.58. NESHAP recently promulgated new regulations in the latter part of 1990. These regulations can be found in the Air Pollution Control District (APCD) Rule Book, Rules 361.140 throughout 361.156 (APCD General Information Desk, 6/7/91). These rules apply only to the removal of friable asbestos.

Contractors removing both friable and non-friable asbestos from buildings must be licensed by the State Licensing Board and registered with the Carcinogen Control Unit of CAL-OSHA (CAL-OSHA Consulting Division, 6/7/91).

These CAL-OSHA and NESHAP regulations specify that the asbestos must be removed prior to demolition of the building. The regulations also describe the procedures and methods which must be followed during the removal operation and during the disposal of the asbestos. Typical procedures for removal of friable asbestos include:

Sealing all openings and fixtures to the exterior.

Spraying the friable asbestos with water containing a wetting agent to minimize airborne fibers.

After removal, cleaning the entire area to remove settled dust.

Providing a decontamination facility, which will contain a changing room, shower area, and equipment area.

Providing workers with protective equipment such as clean, full body coveralls, disposable head covers, and respiratory equipment as required by CAL-OSHA. Eye protection and hard hats should also be available.

Monitoring air according to CAL-OSHA standards to determine if fibers are escaping the sealed building and what respiratory protection is

appropriate for workers inside the building based on sampled concentrations.

Labeling and packaging the removed asbestos according to NESHAP and CAL-OSHA standards and disposing of it in an approved landfill. Non-friable asbestos is accepted at more types of landfills than friable asbestos.

Removal of non-friable asbestos has similar requirements, although wetting the material is not required (APCD General Information Desk, 6/7/91). Prior to removal of any asbestos, NESHAP must be notified that the removal will be taking place.

V. REGULATORY REVIEW

There are three facilities that currently exist on the site which have or have had permits to use or store hazardous materials. These establishments are the now-vacant J.C. Penney Automotive Center, the Sears Automotive Center (presently operating), and the Half-Hour Perma Clean dry cleaners located in the building to be demolished as part of the proposed redevelopment project.

The Soils Testing Closure Report (County of San Diego Hazardous Materials Management Division [HMMD] 1991a) prepared for the J.C. Penney Automotive Center located on the project site was reviewed by RECON on June 10, 1991. The report states that the status of the J.C. Penney Automotive Center was open and unresolved as of February 19, 1991. A further check of the department's computer files showed that the site status was still open as of June 10, 1991.

The Soils Testing Closure Report file provided a brief history of the underground tank which was removed from the site. An unauthorized release from an underground tank at the J.C. Penney Automotive Center was reported to the owner in November of 1986. That month, a 550-gallon tank used to store waste oil was removed from the J.C. Penney Automotive Center. Soils at the removal site were tested and found to be contaminated with lead above the action limits. Approximately 12.49 tons of contaminated soils was removed from the site in 1986 and hauled to a Class I landfill.

RECON contacted the San Diego County HMMD to inquire about what is required to attain final closure of the Penney Automotive Center site. The HMMD states that they have not received, to date, sufficient documentation and information regarding the removal of the storage tank and contaminated soil to determine whether the site can be finally closed (Lipear, HMMD, 6/11/91). Future actions needed to complete the closing of the site are dependent upon what type of additional information is received by the San Diego County HMMD.

The Sears Automotive Center used to include a gas station immediately west of the existing center. According to a letter in the closure report for the J.C. Penney Automotive Center, ten underground storage tanks were removed from the Sears Automotive Center; three on February 15, 1985 and seven on November 10, 1986.

These tanks consisted of three 8,000-gallon tanks and one 750-gallon tank, which held regular leaded gasoline, and six 550-gallon tanks, which held waste oil. The requirements of the HMMD were fulfilled to the satisfaction of that department and the files were closed (County of San Diego 1991b).

The Sears Automotive Center is presently in operation and holds permits with the HMMD for hazardous waste and inventory (County of San Diego 1991b). The site was inspected on December 12, 1991 and two violations regarding personnel training and one violation regarding manifest records was recorded (County of San Diego 1991b). Compliance was required by January of 1990. No unauthorized spills or releases have been recorded at the Sears Automotive Center (County of San Diego 1991c).

The Half-Hour Perma Clean dry cleaners on-site holds a permit for hazardous waste (County of San Diego 1991d). They are not a major generator or storer of hazardous materials.

The County's records were reviewed for the areas immediately adjacent to the site. Permit holders in the immediate vicinity of the site primarily consist of small auto-related shops (County of San Diego 1991d). There are no large generators of hazardous materials in the immediate vicinity.

The San Diego Air Pollution Control District was contacted regarding permitted establishments on or directly adjacent to the site. The Half-Hour Perma Clean is the only permitted establishment on the site (Tice, APCD, 6/11/91). There are none immediately adjacent to the site.

VI. SUMMARY AND CONCLUSIONS

The building containing the drug store and vacant supermarket space has been documented to contain both friable and non-friable asbestos. The proposed demolition of this building must be accomplished in accordance with the applicable APCD, NESHAP, and CAL-OSHA regulations described above. If the applicable regulations are followed, removal of the asbestos from the two buildings prior to their removal would not represent a public safety hazard.

According to the San Diego County HMMD, there are unresolved issues relating to the removal of an underground storage tank at the presently vacant J.C. Penney Automotive Center. These issues are discussed above. Future actions which may be required to close this site are dependent upon what additional information is provided to the County HMMD regarding the tank removal. Closure of the site by the HMMD must occur before the J.C. Penney Automotive Center can be demolished as part of the project. If the site is determined closed by the HMMD and proper demolition procedures are followed, then removal of the J.C. Penney Auto Center would not pose a public safety hazard.

The data gathered on the site did not provide information about the land uses on the site prior to the Navy housing shown in the 1953 aerial photograph. Based on the limited research performed, however, it appears unlikely that there are any significant hazardous wastes on the property other than the unresolved J.C. Penney Automotive Center site and the asbestos discovered in some of the buildings. There are no large generators of hazardous waste or air emissions currently on the site or in the immediately adjacent areas.

VII. PERSONS AND AGENCIES CONSULTED

Air Pollution Control District
General Information Desk
Ann Marie Tice

Chula Vista Center
Leasing and Management Office
Ben Richardson, Manager

Homart Development Corporation
Yvette Soudani

San Diego County Department of Environmental Health
Hazardous Materials Management Division
Don Lipear

San Diego Gas and Electric
Environmental Department
Jerry Brull

State of California Industrial Relations Department
Occupational Safety and Health
CAL-OSHA Consultation Service

VIII. REFERENCES CITED

Environmental Protection Agency
1979 Asbestos-Containing Materials in School Buildings: A Guidance Document, Part 2. March.

1982 "Interim Method for the Determination of Asbestos in Bulk Insulation Samples." EPA-600/M4-82-020. December.

Letco & Associates
1987 Building Survey Report for Asbestos-Containing Materials, Chula Vista Shopping Center Complex. Chula Vista. April 28.

San Diego, County of, Dept. of Health Services, Hazardous Materials Management Division
1991a Soils Testing Closure Report #H20118-001. J.C. Penney/Firestone Automotive Center. Last entry in file March 29, 1991.

1991b List of Inventory and Violations of Permitted Facilities. Microfiche. Updated March 1.

1991c Unauthorized Release Listing.

1991d HE58 Listing - Hazardous Materials Management Division Permitted Establishments. Updated June 6.

William A. Steen and Associates
1991 A.L.T.A. Survey Map and Notes for Homart and Sears Chula Vista Center. Revised March 18.

ATTACHMENT 1

LETCO ASSOCIATES, INC.

5500 GUHN ROAD
HOUSTON, TEXAS 77040
PHONE (713) 939-7161

900 GRAND CENTRAL AVENUE
GLENDALE CALIFORNIA 91201
PHONE (818) 243-4140

April 28, 1987

Homart Development Corporation
Xerox Center, Suite 3100
55 West Monroe
Chicago, Illinois 60603-5060

Attention: Mr. Jose Lora

Subject: Building Survey Report for Asbestos-Containing Materials
Chula Vista Shopping Center Complex
Chula Vista, California
LETCO Associates Project No. HT-1914-87A, Task 2

Gentlemen:

LETCO Associates, Inc. has completed a building survey of the above referenced project. The survey included a visual inspection, sampling and laboratory analysis of suspect asbestos-containing materials and a limited visual assessment of potentially hazardous materials. The survey, performed by Mr. John W. Martin and Mr. John Kinal of LETCO was conducted at the request of Homart Development Company. Several persons employed by Coldwell Banker assisted in this survey. They included Ms. Patti Green, Mr. John Healey, Mr. Dick Shelp, and Mr. Bob Boyle.

A limited survey of two buildings in the complex was completed by Mr. Joe Loflin on August 21, 1986. The previous work included material sampling of vacant lease spaces and the roofs of both Buildings A and B. The results of the earlier survey are included in this report for comparison purposes.

The attached report is divided into eleven sections. The first section presents the general project information, including inspection and sampling procedures, alternatives for controlling asbestos-containing materials, and a summary of the exposure assessment. The remaining ten sections correspond to the different buildings, and include bulk sample results, photographs, and asbestos management recommendations.

LETCO has endeavored to investigate existing conditions within the buildings using standard accepted procedures. Regardless of the thoroughness of such a survey, it is possible that some areas containing asbestos were inadvertently overlooked or inaccessible. This report presents the general description of various construction materials and general locations where these materials were observed. Determination of the specific quantity and location of all asbestos-containing materials within the facilities is beyond the scope of this work. Should questions arise during abatement operations as to the presence of asbestos-containing materials, LETCO Associates should be notified in order to assess the conditions and review our recommendations.

This report was prepared on behalf of, and exclusively for the use of, Homart Development Company. This report and the findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party or be used or relied upon by any other party, in whole or in part without LETCO's prior written consent.

LETCO appreciates this opportunity to provide consulting services for Homart Development Company in this matter. Should questions arise concerning this report, or if we can be of further service, please contact us at your convenience.

Sincerely,

LETCO ASSOCIATES, INCORPORATED

John W. Martin
Staff Engineer

Frederick J. Krishon, P.E.
Senior Materials Engineer

John L. Kinal
Project Engineer

Lawrence E. Carroll
Asbestos Services Manager

Attachment

cc: Tom Gourguechon

clm/1914TK2.LTR

SECTION I

PROJECT INFORMATION AND PROCEDURES

I. PROJECT INFORMATION AND PROCEDURES

Project Description

Chula Vista Shopping Center is comprised of twelve buildings erected in 1962, ten of which were included in this survey. The shopping center is located in Chula Vista, California and bordered on four sides by H Street, 5th Avenue, I Street and Broadway. The shopping center is comprised of 266,716 square feet with 8,900 square feet of basement area. A general description of each of these buildings is included in the individual sections. Also included in this survey was a Boy's Club and a Residence located on I Street, one block from the shopping center.

In August, 1986 a limited survey was performed by Mr. Joe Loflin. The survey was limited to vacant spaces only. Material sampling results from this survey are included in the Summary of Bulk Analysis Tables of this report. This survey is to include all leased and nonleased spaces in the buildings noted in Table I.

TABLE I
BUILDINGS INCLUDED IN MATERIAL SURVEY

Building A - Various Retail Spaces
Building B - Various Retail Spaces
Building C - J.C. Penney's
Building D - Von's, Osco's
Building F - Security Pacific National Bank
Building G - J.C. Penney's Tire, Battery and Auto Shop
Building H - Various Retail Spaces
Building K - Bob's Big Boy
Pacific Bell Building
Burger King

The scope of work consisted of bulk material sampling and a visual assessment of potential hazards. Emphasis was placed on material sampling to determine the presence and quantity of asbestiform minerals in building materials and interior finishes. Information obtained from the survey was used to prepare recommendations and an "Engineer's Opinion of Cost" for removal of the hazardous materials identified.

The following sections contain a description of sampling locations, photographic documentation of existing conditions, bulk sample test results, our recommendations for specific areas of concern, and an "Engineers Opinion of Cost" for the recommended abatement work. The remainder of this section contains general information and procedures which apply to all subsequent sections of the report.

Bulk Sampling and Analyses

The survey for friable building materials suspected of containing asbestos included visual observation of retail spaces, storage areas, electrical vaults, mechanical rooms, ventilation systems, areas overhead and above suspended ceilings and roofing components. The purpose of the inspection was to locate and identify sprayed, troweled, or precast applications of thermal, acoustical, aesthetic and fireproofing treatments which may contain friable asbestos materials. "Friable" materials are those which can be reduced to a powder or crumbled by hand pressure, releasing harmful fibers into the air.

Representative bulk samples of friable and non-friable materials were obtained from acoustical ceiling tile, pipe wrap insulation, fireproofing, and other building materials throughout the facilities. A total of 102 samples was collected and delivered to our laboratory for visual inspection and microscopic analyses. The samples were analyzed using Polarized Light Microscopy (PLM) coupled with dispersion staining as detailed in the Environmental Protection Agency's (EPA) "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (EPA-600/M4-82-020, December, 1982).

Exposure Assessment

As part of the survey, a visual assessment was performed to gain insight into the potential for asbestos fiber release from suspected material and surface finishes. As outlined in the

EPA's "Guidance for Controlling Friable Asbestos-Containing Materials in Buildings", the condition and location of asbestos-containing material must be considered.

The relationship between the actual airborne asbestos fibers released from friable asbestos-containing surface finishes and the condition of the finishes has been the subject of numerous studies. The most recent and comprehensive of these studies was sponsored by the EPA in 1982. The results of this study indicated that a positive correlation exists between the presence of water damage and/or the proximity of the asbestos-containing material to a direct air stream and the amount of asbestos fibers released in the air. The amount of exposed surface area, accessibility of occupants and the degree of activity in the affected area must also be considered. Thus, concluded the EPA, "If water damage, physical damage, slow deterioration or delamination of the material is evident, then fiber release has occurred, is occurring or is likely to occur in the future" (EPA 560/5-82-002).

Subsequent sections of this report detail exposure risks observed in the individual buildings surveyed and present areas of specific concern and recommendations for minimizing the risk to the building occupants.

Alternatives for Controlling Asbestos-Containing Materials

There are four recognized alternative courses of action to control exposure to asbestos-containing material in buildings: (1) removal, disposal, and replacement; (2) encapsulation; (3) enclosure; and (4) special operations, maintenance and re-inspection programs. The selection of a particular alternative should be based upon the intended usage of the building, actual exposure levels as monitored in the building, and the condition and location of the asbestos-containing material.

Removal of the asbestos-containing material from the building is the only permanent solution to the problem of exposure of the occupants to asbestos fibers. This alternative may appear to be

the most expensive alternative, but it is the only permanent solution. Removal should be seriously considered when air monitoring tests reveal high airborne fiber counts; when the material is extremely friable or badly damaged; or when the material is applied in an accessible area or in an area of high air flow rates, such as return air plenum spaces. The EPA also requires removal before demolition of the building or before renovation activities which may disturb the asbestos-containing material.

Encapsulation of asbestos-containing material is a temporary measure designed to reduce fiber emissions from the material. This alternative is useful only when the asbestos-containing material is in a stable, relatively undamaged condition. Encapsulation is considered a temporary measure because the asbestos-containing material still exists in the building and care must always be taken to avoid disturbing it. The location and condition of the material should also be well documented and periodic inspection of the encapsulated area should be made to verify that no deterioration or damage has occurred. The necessary recordkeeping for this procedure can become quite cumbersome.

Enclosure, also a temporary solution, is usually quite difficult to implement. This alternative requires surrounding the material with an airtight seal or barrier to prevent fibers released by the material from reaching building occupants. This method is warranted when the asbestos-containing material is difficult, if not impossible, to remove or encapsulate. The cost of constructing proper barriers for enclosure may approach the cost of asbestos removal without actually removing the hazardous materials from the building. Again, the location of the material should be well documented and a record system implemented.

Regardless of the alternative selected, all related activities should be conducted under properly controlled conditions by specially trained personnel. Asbestos removal should be

performed by a qualified asbestos removal contractor under the guidelines of strict specifications. All asbestos-containing material must be properly disposed of as contaminated waste.

In addition, we strongly recommend that during the interim period prior to abatement action, a written control (Operations and Maintenance Plan) program be established for the employees and occupants working in the building to minimize their risk of exposure to airborne asbestos fiber. The Operations and Maintenance Plan is developed to comply with the OSHA asbestos standard requirement for a written compliance program. This program should include, at a minimum, proper safety precautions and cleaning methods, and instructions for personnel working in the vicinity of the asbestos-containing material. Periodic air monitoring of the building and inspection of the condition of the asbestos-containing material should also be performed.

Due to the potential health hazards and legal ramifications involved with asbestos exposure in buildings, we recommend an interdisciplinary team approach including engineering, medical and legal professionals, working together to develop the asbestos management plan.

Visual Assessment of Potential Hazards

In conjunction with the material sampling, a limited visual survey was performed to assess potential hazards within the various buildings. Areas observed included storage areas, boiler rooms, electrical vaults, mechanical rooms, roofs, and retail spaces. Visual observations were recorded and are included in subsequent sections.

SECTION II
BUILDING A - RETAIL SPACE

II. BUILDING A - RETAIL SPACES

Building A is one of several buildings which comprise an open air shopping center. The exterior walls are brick and glass. The roofs are corrugated steel decking with no evidence of spray-applied fireproofing. Ceiling finishes vary among the different retail spaces and include spray-applied texture, ceiling tile and plaster. Air conditioning and heating are supplied by roof mounted units.

This building includes of 14 retail spaces which comprise a total of 45,137 square feet. The structure has a single level aboveground with 8,900 square feet of basement area. The basement is primarily used as a storage area by the different retail outlets with the exception of the Highlander which uses the space for operational steam presses. Various types of building material and finishes were observed in the different areas.

SUSPECT MATERIALS

Samples of pipe insulation, air handler insulation, spray-applied ceiling texture, floor tile, and ceiling tile were obtained during the survey. Of these samples, the pipe insulation, spray-applied ceiling texture, and floor tile were found to contain asbestos. The results of the material survey is presented in Table II. A brief summary of the asbestos-containing materials identified and their respective locations is presented below. Recommendations for the various areas will be discussed in Section XIII.

SUSPECT MATERIALS - BUILDING A

Location	Asbestos-Containing Material Identified
Fashion Conspiracy	———
Guadalara Jewelry	———
Hardy Shoes	———
Highlander	Pipe Insulation (Elbow)
Kids Mart	———
Koven's Jewelry	Spray-Applied Ceiling Texture
(Vacant Lease Space II)	
Leed's Shoe Store	Pipe Insulation (Elbow)
Miller's Outpost (Present)	———
Miller's Outpost (Vacant)	Steam Pipe Insulation (Elbow)
(Vacant Lease Space I)	Floor Tile, one foot square
Payless Shoes	———
Rayas	———
See's Candies	———
Streicher's	———
Corridor(s)	———
North Electrical Vault	———
Roof	Pipe Insulation (Elbow)
Storage Area	———

Highlander

Insulation on pipe elbows within the Highlander clothing store were found to contain asbestos. In the basement operational steam presses were observed. The presses are supplied from a remote boiler which serves the Highlander only. Elbows on the supply and return lines which run along the north wall were found to be similar and to contain asbestiform minerals.

Leed's Shoe Store

Domestic hot water is supplied from a hot water tank which is located near the restrooms in the basement. Pipe elbow insulation tested was found to contain asbestos. Vertical and horizontal runs of pipe appear to be insulated with a fiber glass material.

Koven's Jewelry (Vacant Lease Space II

A spray-applied ceiling texture was observed in the vacant lease space that once housed Koven's Jewelry. This ceiling texture was found to contain asbestiform minerals. An earlier survey also identified the material as asbestos-containing. Delamination of the ceiling texture is evident near diffusers and grills. The general condition of the material was poor at the time of this survey.

Miller's Outpost (Vacant Lease Space I)

Floor tile in this lease space was found to contain asbestos. The one foot square brown floor tile found to contain asbestos appears to be in the basement and stairwell only. Brown carpeting overlaying a brick floor exists in the store area.

In the limited survey conducted in August, 1986, steam pipe insulation on elbows was found to contain asbestos. The suspect insulation was found in the basement. Presently there is an inactive steam press located in the area. No evidence of a boiler was found.

Roof (Penthouse Air Conditioning)

Insulation on pipe elbows associated with the HVAC system was found to contain asbestos. Samples from straight sections of pipe, both vertical and horizontal, were found to contain primarily mineral wool insulation. The asbestos-containing material was generally found to be in poor condition with several damaged and exposed areas.

The HVAC system is presently covered by a corrugated metal enclosure with a two to three foot opening running along the perimeter of the housing. The metal enclosure keeps the majority of the moisture resulting from rain from the system, however some moisture has penetrated insulated lines due to the perimeter opening. Moisture can result in degradation and delamination of asbestos insulation.

Flex joints on the air conditioning units were also found to contain a high percentage of asbestos. This material was identified in the August, 1986 survey.

POTENTIAL HAZARDS

North Electrical Vault

The north electrical vault which serves Building A and the north parking lot exhibits evidence of water leaks in several areas. Plastic sheeting has been draped over several lines of conduit in an effort to keep the lines dry. Information obtained from the security guard indicated that previous attempts to alleviate the problem, have been unsuccessful.

Streicher's

Streicher's is located in the Northeast corner of Building A. It was noted that in the Northeast corner of the retail area several cracks had propagated through the ceiling near window display cases. The cracks appear to have resulted from recent settlement.

TABLE II
CHULA VISTA MALL - BUILDING A
SUMMARY OF BULK SAMPLE ANALYSES
FOR ASBESTOS IDENTIFICATION

LETCO ASSOCIATES PROJECT NO. HT-1914-87A, TASK 1 DATE: APRIL 28, 1987

LAB NUMBER	SAMPLE TYPE	LOCATION	RESULTS OF PLM ANALYSIS
* H7771	FLOOR TILE, BROWN	MILLER'S OUTPOST, PRESENTLY VACANT	<1% CHRYSOTILE ASBESTOS
H7770	CEILING TILE, 2'x4', WHITE	MILLER'S OUTPOST, PRESENTLY VACANT	GLASS FIBERS, CELLULOSE, PAPER AND BINDERS
* H7769	FLOOR TILE, 9"x9", GREEN	KOVEN'S JEWLERY STORE	<1% CHRYSOTILE ASBESTOS
* H7768	SPRAY-APPLIED CEILING	KOVEN'S JEWLERY STORE	10% CHRYSOTILE ASBESTOS
* H7767	FLOOR TILE, 9"x9", REDDISH BROWN	CORRIDOR	<1% CHRYSOTILE ASBESTOS
H7784	FLOOR TILE, 9"x9"	STORAGE AREA ADJACENT TO PAYLESS SHOE STORE	BINDERS AND CALCITE CHRYSTALS
H7816	CEILING TILE 2'x4', WHITE	MILLERS OUTPOST, COMMON AREA	GLASS FIBERS, PERLITE, CELLULOSE, PAPER AND BINDERS

* Asbestos-containing materials - The percent of various material components was estimated by the microscopist during the analysis. Polarized Light Microscopy (PLM) coupled with dispersion staining was the method of identification used.

The results of these analyses should not be used to prepare a scope of work for abatement without consulting with Law Engineering.

TABLE II
CHULA VISTA MALL - BUILDING A
SUMMARY OF BULK SAMPLE ANALYSES
FOR ASBESTOS IDENTIFICATION

LETCO ASSOCIATES PROJECT NO. HT-1914-87A, TASK 1 DATE: APRIL 28, 1987

LAB NUMBER	SAMPLE TYPE	LOCATION	RESULTS OF PLM ANALYSIS
H7817	CEILING TILE, 1'x1'	STREICHERS	CELLULOSE, PAPER, BINDERS AND PAINT
H7818	CEILING TILE, 2'x2'	GUADALARA JEWLERY	GLASS FIBERS, PERLITE, WOOD FIBERS AND BINDERS
H7819	CEILING INSULATION	HARDY SHOES	GLASS FIBERS AND WOOD FIBERS
* H7842	FLOOR TILE, 9"x9", WHITE	SEE'S CANDIES	<1% CHRYSOTILE ASBESTOS
H7843	CEILING TILE, 2'x2'	HIGHLANDER, BASEMENT	GLASS FIBERS, PERLITE, CELLULOSE, PAPER AND BINDERS
* H7844	PIPE INSULATION, STEAM LINE, ELBOW	HIGHLANDER, BASEMENT	5% CHRYSOTILE ASBESTOS
H7848	DUCT INSULATION	LEEDS SHOE STORE, BASEMENT	MICA AND BINDERS

* Asbestos-containing materials - The percent of various material components was estimated by the microscopist during the analysis. Polarized Light Microscopy (PLM) coupled with dispersion staining was the method of identification used.

The results of these analyses should not be used to prepare a scope of work for abatement without consulting with Law Engineering.

TABLE II
CHULA VISTA MALL - BUILDING A
SUMMARY OF BULK SAMPLE ANALYSES
FOR ASBESTOS IDENTIFICATION

LETCO ASSOCIATES PROJECT NO. HT-1914-87A, TASK 1 DATE: APRIL 28, 1987

LAB NUMBER	SAMPLE TYPE	LOCATION	RESULTS OF PLM ANALYSIS
* H7849	PIPE INSULATION, HOT WATER LINE, ELBOW	LEEDS SHOE STORE	3% CHRYSOTILE ASBESTOS 2% AMOSITE ASBESTOS
* H5650+	PIPE INSULATION, ELBOW	ROOF, AIR CONDITIONER LINE	8% CHRYSOTILE ASBESTOS
H5651+	PIPE INSULATION, STRAIGHT	ROOF, AIR CONDITIONER LINE	CELLULOSE AND MINERAL WOOL
* H7845	PIPE INSULATION, ELBOW	ROOF	5% CHRYSOTILE ASBESTOS
* H7846	PIPE INSULATION, ELBOW	ROOF	5% CHRYSOTILE ASBESTOS
H7847	ROOF FLASHING	ROOF	GLASS FIBERS, CELLULOSE, PAPER TAR, QUARTZ, CALCITE AND CARBONATE BINDER

* Asbestos-containing materials - The percent of various material components was estimated by the microscopist during the analysis. Polarized Light Microscopy (PLM) coupled with dispersion staining was the method of identification used.

The results of these analyses should not be used to prepare a scope of work for abatement without consulting with Law Engineering.

+ Results from previous survey performed August, 1986.

TABLE II
CHULA VISTA MALL - BUILDING A
SUMMARY OF BULK SAMPLE ANALYSES
FOR ASBESTOS IDENTIFICATION

LETCO ASSOCIATES PROJECT NO. HT-1914-87A, TASK 1 DATE: APRIL 28, 1987

LAB NUMBER	SAMPLE TYPE	LOCATION	RESULTS OF PLM ANALYSIS
H5644+	STEAM PIPE INSULATION, STRAIGHT	BASEMENT, VACANT LEASE SPACE I (MILLER'S) (8/21/86)	MINERAL WOOL AND BINDERS
* H5645+	STEAM PIPE INSULATION, ELBOW	BASEMENT, VACANT LEASE SPACE I (MILLER'S) (8/21/86)	10% CHRYSOTILE ASBESTOS
* H5646+	FLOOR TILE	BASEMENT, VACANT LEASE SPACE I (MILLER'S) (8/21/86)	2% CHRYSOTILE ASBESTOS
* H5647+	SPRAY-APPLIED CEILING TEXTURE	CEILING, VACANT LEASE SPACE II (KOVEN'S) (8/21/86)	15% CHRYSOTILE ASBESTOS
H5648+	FLOOR TILE	FLOOR, VACANT LEASE SPACE II, (8/21/86) (KOVEN'S)	QUARTZ AND BINDERS

* Asbestos-containing materials - The percent of various material components was estimated by the microscopist during the analysis. Polarized Light Microscopy (PLM) coupled with dispersion staining was the method of identification used.

The results of these analyses should not be used to prepare a scope of work for abatement without consulting with Law Engineering.

+ Restuls from previous survey performed August, 1986.

SECTION III
BUILDING B - RETAIL SPACE

III. BUILDING B - RETAIL SPACE

Building B is one of several building which comprise an open air shopping center. Its exterior walls are brick and glass. The roofs are corrugated steel decking with no evidence of spray-applied fireproofing. Ceiling texture varies among the different retail spaces. Air conditioning and heating are supplied by roof mounted units.

The building includes ten retail spaces which comprise a total of 45,137 square feet. It is a single level structure with no basement area. Various types of construction materials were used in the different spaces.

SUSPECT MATERIALS

Samples of pipe insulation, duct insulation, plaster, floor tile, roofing materials, ceiling tile, and spray-applied ceiling texture were obtained. Of these samples, the pipe insulation, HVAC system, and floor tile were found to contain asbestos. The results of the material survey is presented in Table II.

A brief summary of the asbestos-containing materials identified and their respective locations is listed below. Recommendations for the various areas are discussed in Section XIII.

SUSPECT MATERIALS IN BUILDING B

Location	Asbestos-Containing Material Identified
Farr's Stationers	———
Foot Locker	———
Impressions	———
Kinney Shoes	Floor Tile, 1'X1' (Burgundy)
Lerner	———
Optometrist	———
Orange Julius	———
Walden books	———
Yardage City	———

Location	Asbestos-Containing Material Identified
Vacant Area	-----
South Electrical VAult	-----
Corridor(s)	Floor Tile, 9"X9" (Beige)
Roof	Pipe Insulation & Flex Joint (AC)
	Transite Wall Paneling

Roof

Pipe insulation on elbows of the penthouse HVAC system were found to contain asbestos. In some locations damaged and exposed insulation was observed. As noted in Section II, some of the damage appears to have resulted from moisture. Moisture is able to penetrate insulating materials creating a delamination effect.

Flex joints on the HVAC system were also found to contain a significant percentage of asbestos. The flex joint material is a pliable, clothlike substance and considered non-friable unless ripped or torn.

Transite wall paneling was sampled on an earlier survey and was found to contain less than one percent of Chrysotile asbestos. Presently, governmental entities are only concerned with friable material which contains one percent or more of asbestos. The wall paneling is considered to be a non-friable material in its present state.

Corridor

A sample of nine inch square beige floor tile was obtained from a corridor, whose entrance is on the south side of Building B. Analysis indicated that the sample contains less than one percent

Chrysotile asbestos. The floor tile, like the transite wall paneling, noted earlier is a non-friable material in its present state.

Kinney's Shoes

A sample of one foot square burgundy floor tile was obtained from the stock area. This sample was analyzed and found to contain less than one percent Chrysotile asbestos. The floor tile is a non-friable material in its present state.

POTENTIAL HAZARDS

Several large cracks were observed in corridors within Building B. The cracks had propagated several feet through masonry unit walls in some areas. Cracks appear to have resulted from settlement of the structure.

TABLE III
CHULA VISTA MALL - BUILDING B
SUMMARY OF BULK SAMPLE ANALYSES
FOR ASBESTOS IDENTIFICATION

PAGE 1 OF 3
LETCO ASSOCIATES PROJECT NO. HT-1914-87A, TASK 1 DATE: APRIL 28, 1987

LAB NUMBER	SAMPLE TYPE	LOCATION	RESULTS OF PLM ANALYSIS
H7761	COLUMN CASING PLASTER	CORRIDOR	BINDERS, QUARTZ AND CHERT CHRYSTALS
H7762	DUCT INSULATION	CORRIDOR ROOF ACCESS	GLASS FIBERS AND PERLITE
H7763	PLASTER	CORRIDOR ROOF ACCESS	CELLULOSE, PAPER, BINDERS AND QUATRZ CHRYSTALS
* H7764	FLOOR TILE, 9"x9", BEIGE	CORRIDOR	<1% CHRYSOTILE ASBESTOS
* H5638+	PIPE INSULATION, ELBOW	ROOF, AIR CONDITIONER LINE	12% CHRYSOTILE ASBESTOS, WRAP 8% CHRYSOTILE ASBESTOS (INSULATION)
* H5639+	AIR CONDITIONER, FLEX JOINT	ROOF, AIR CONDITIONER	75% CHRYSOTILE ASBESTOS

* Asbestos-containing materials - The percent of various material components was estimated by the microscopist during the analysis. Polarized Light Microscopy (PLM) coupled with dispersion staining was the method of identification used.

The results of these analyses should not be used to prepare a scope of work for abatement without consulting with Law Engineering.

+ Results from previous survey peformed August, 1986.

TABLE III
CHULA VISTA MALL - BUILDING B
SUMMARY OF BULK SAMPLE ANALYSES
FOR ASBESTOS IDENTIFICATION

PAGE 2 OF 3
LETCO ASSOCIATES PROJECT NO. HT-1914-87A, TASK 1 DATE: APRIL 28, 1987

LAB NUMBER	SAMPLE TYPE	LOCATION	RESULTS OF PLM ANALYSIS
H5640+	PIPE INSULATION, STRAIGHT	ROOF, AIR CONDITIONER LINE	MINERAL WOOL, CELLULOSE AND ASPHALT BINDERS
* H5641+	TRANSITE WALL PANEL	SIDING ON ROOF	<1% CHRYSOTILE ASBESTOS
H5642+	ROLLED ROOFING	ROOF	CELLULOSE, FIBERGLASS AND ASPHALT BINDERS
H5643+	ROOF PENETRATION	ROOF	CELLULOSE AND TAR
* H7836	PIPE INSULATION, AIR CONDITIONING, ELBOW	ROOF	5% CHRYSOTILE
* H7837	PIPE INSULATION, AIR CONDITIONING, ELBOW	ROOF	5% CHRYSOTILE ASBESTOS
H7838	SPRAY-APPLIED CEILING TEXTURE	YARDAGE CITY	BINDERS, STYROFOAM AND PAINT

* Asbestos-containing materials - The percent of various material components was estimated by the microscopist during the analysis. Polarized Light Microscopy (PLM) coupled with dispersion staining was the method of identification used.

The results of these analyses should not be used to prepare a scope of work for abatement without consulting with Law Engineering.

+ Results from previous survey performed August, 1986

TABLE III
CHULA VISTA MALL - BUILDING B
SUMMARY OF BULK SAMPLE ANALYSES
FOR ASBESTOS IDENTIFICATION

PAGE 3 OF 3
LETCO ASSOCIATES PROJECT NO. HT-1914-87A, TASK 1 DATE: APRIL 28, 1987

LAB NUMBER	SAMPLE TYPE	LOCATION	RESULTS OF PLM ANALYSIS
* H7840	FLOOR TILE, 1'x1', BURGUNDY	KINNEY'S SHOES	<1% CHRYSOTILE ASBESTOS
H7841	CEILING TILE, 1'x1'	KINNEY'S SHOE STORE	WOOD FIBES AND BINDERS

* Asbestos-containing materials - The percent of various material components was estimated by the microscopist during the analysis. Polarized Light Microscopy (PLM) coupled with dispersion staining was the method of identification used.

The results of these analyses should not be used to prepare a scope of work for abatement without consulting with Law Engineering.

SECTION IV
BUILDING C - J.C. PENNEY'S

IV. BUILDING C

Building C is one of several buildings which comprise an open air shopping center. It houses the J.C. Penney's store. It is a single level structure with a basement that comprises 80,000 square feet total. The basement is primarily used for storage with some office spaces. Air conditioning and heating are supplied to the store area by roof mounted units. The basement is served by a remote building unit.

SUSPECT MATERIALS

Samples of pipe insulation, duct insulation, transite siding, roof flashing, ceiling tile, plaster, and floor tile were obtained. Of these samples the pipe insulation (elbows and valves), air conditioning flex joints, and transite siding were found to contain asbestos. The results of the material survey is presented in Table IV. A brief summary of the asbestos-containing materials identified and their respective locations is noted below. Recommendations for the various areas are discussed in Section XIII.

SUSPECT MATERIALS - BUILDING C

Location	Asbestos-Containing Material Identified
Roof Penthouse (AC Room)	Pipe Insulation (Valve, Elbows)
Roof Penthouse (chilling tower)	Transite Siding (Slats)
Roof	-----
Store Area (Ground Floor)	-----
Basement	Air Conditioning, Flex Joint

Roof Penthouse (HVAC)

Samples were taken from several types of pipe insulation including straight runs, valves, and elbows. Four units (zones) serve the store area with chilled water return and supply lines

running from each unit. Insulation from valves and elbows were found to contain asbestos. In isolated locations, the insulation was found to be damaged and exposed, but overall, the piping insulation in these areas was considered in fair condition.

Roof Penthouse (chilling tower)

Adjacent to the HVAC room is a chilling tower enclosed on four side with corrugated metal partitions. On the north and south sides of the chilling tower there are a number of transite board slats. A sample of this material was analyzed and found to contain a significant percentage of asbestos. This material is considered to be non-friable if not broken or shattered.

Basement

An air conditioning flex joint found on a remote air handling unit in the basement was found to contain 50 percent Chrysotile asbestos. This material is similar to that found on the roof of Building A. It is a pliable, clothlike material which is considered non-friable unless ripped or torn.

POTENTIAL HAZARDS

None noted.

TABLE IV
BUILDING C - J.C. PENNEY'S
CHULA VISTA MALL
SUMMARY OF BULK SAMPLE ANALYSES
FOR ASBESTOS IDENTIFICATION

PAGE 1 OF 2
LETCO ASSOCIATES PROJECT NO. HT-1914-87A, TASK 1 DATE: APRIL 28, 1987

LAB NUMBER	SAMPLE TYPE	LOCATION	RESULTS OF PLM ANALYSIS
H7772	VALVE INSULATION, CHILL WATER	ROOF PENTHOUSE, AC ROOM	GLASS FIBERS, CELLULOSE AND PAPER
* H7773	PIPE INSULATION, ELBOW, CHILL WATER	ROOF PENTHOUSE, AC ROOM	3% AMOSITE ASBESTOS
H7774	PIPE INSULATION, VERTICAL RUN, CHILL WATER	ROOF PENTHOUSE, AC ROOM	GLASS FIBERS AND CELLULOSE
H7775	DUCT INSULATION	ROOF PENTHOUSE, AC ROOM	GLASS FIBERS AND CELLULOSE
* H7776	VALVE INSULATION, AC UNIT #2	ROOF PENTHOUSE, AC ROOM	2% AMOSITE ASBESTOS
* H7777	TRANSITE SIDING (SLATS) CHILLING TOWER	ROOF	45% CHRYSOTILE ASBESTOS

* Asbestos-containing materials - The percent of various material components was estimated by the microscopist during the analysis. Polarized Light Microscopy (PLM) coupled with dispersion staining was the method of identification used.

The results of these analyses should not be used to prepare a scope of work for abatement without consulting with Law Engineering.

V. BUILDING D - VON'S, OSCO'S

Building D is located to the south of Buildings B and C. It presently houses Von's Food Market and Osco Drug Store. Its exterior walls are brick and glass. The roof is of plywood and wood construction. It is a single story structure, with two levels in the stock area for storage, loading and unloading, and offices.

Von's Food Market has a lay-in acoustical ceiling system with two feet by four feet ceiling tiles in the storefront area. A heating and air conditioning unit is located on the roof. The stock consists of several refrigerated units and general storage area.

Osco Drug Store also has a lay-in acoustical ceiling system with two feet by four feet ceiling tile in the storefront area. Approximately six inches above the lay-in ceiling system a spray-applied ceiling texture was observed. HVAC units are located on the second floor in the rear of the store. A white fluffy insulation material (very friable) was scattered throughout the ceiling insulation. A catwalk from the HVAC room provides access to areas above the ceiling. No insulation was evident in the HVAC room.

SUSPECT MATERIALS

Samples of roofing materials, ceiling insulation, ceiling texture, ceiling tiles, floor tiles, column wrap, and insulation from refrigerated units were obtained. Of these samples the spray-applied ceiling texture and floor tile were found to contain asbestos. The results of the material survey is presented in Tables V-A and V-B. A brief summary of the asbestos-containing materials identified and their respective locations is listed below. Recommendations for the various areas are discussed in Section XIII.

TABLE IV
BUILDING C - J.C. PENNEY'S
CHULA VISTA MALL
SUMMARY OF BULK SAMPLE ANALYSES
FOR ASBESTOS IDENTIFICATION

PAGE 2 OF 2
LETCO ASSOCIATES PROJECT NO. HT-1914-87A, TASK 1 DATE: APRIL 28, 1987

LAB NUMBER	SAMPLE TYPE	LOCATION	RESULTS OF PLM ANALYSIS
H7778	ROOF FLASHING	ROOF	CELLULOSE, PAPER, TAR AND ROCK FRAGMENTS
H7779	CEILING TILE, 2'x4', WHITE	TYPICAL THROUGHOUT	GLASS FIBERS AND WOOD FIBERS
H7780	PLASTER OVERSPRAY	PLENUM	MICA, BINDERS, QUARTZ AND CHERT CHRYSTALS
* H7781	FLEX JOINTS, AIR CONDITIONING	REMOTE AIR HANDLING UNIT IN BASEMENT	50% CHRYSOTILE ASBESTOS
H7782	FLOOR TILE, 1'x1'	BASEMENT, STEAM PRESS ROOM	BINDERS AND CALCITE CHRYSTALS
H7783	CEILING TILE, 2'x4', WHITE	BASEMENT, STEAM PRESS ROOM	GLASS FIBERS, PERLITE, WOOD FIBERS, BINDERS AND PAINT

* Asbestos-containing materials - The percent of various material components was estimated by the microscopist during the analysis. Polarized Light Microscopy (PLM) coupled with dispersion staining was the method of identification used.

The results of these analyses should not be used to prepare a scope of work for abatement without consulting with Law Engineering.

SUSPECTED MATERIALS - BUILDING D

Material Location	Asbestos-Containing Material Identified
Von's Food Market	
a. Stock Area	———
b. Restrooms	One Foot Square White Floor Tile
c. Storefront	———
Osco's Drug Store	
a. Roof	———
b. Ceiling	———
c. Storage Area	———
d. 2nd Floor Office	Spray-Applied Ceiling Texture
e. Storefront	Spray-Applied Ceiling Texture

Von's

A sample of white floor tile obtained from Von's Food Market was analyzed and found to contain less than one percent Chrysotile asbestos. Similar floor tile in the restrooms and adjacent corridors including the stairwell. In the tile present condition, it is considered to be a non-friable substance. Regulatory agencies are presently concerned with those friable materials containing one percent or more asbestiform minerals.

Osco Drug Store

Two samples of the ceiling texture were obtained in the Osco's Drug Store. One in a small office overlooking the store, and the second in the storefront area. Both samples were found to contain asbestiform minerals. The spray-applied ceiling texture is hidden from view by a lay-in ceiling system of two feet by four feet acoustical tiles below it making exposure assessment difficult. The area observed and sampled in the office area appeared to be in fair condition.

POTENTIAL HAZARDS

None noted.

TABLE V-A
BUILDING D - VON'S
CHULA VISTA MALL
SUMMARY OF BULK SAMPLE ANALYSES
FOR ASBESTOS IDENTIFICATION

LETCO ASSOCIATES PROJECT NO. HT-1914-87A, TASK 1 DATE: APRIL 23, 1987

LAB NUMBER	SAMPLE TYPE	LOCATION	RESULTS OF PLM ANALYSIS
H7785	INSULATION ON REFRIGERATED ROOMS	STOCK AREA	CELLULOSE, PAPER, BINDERS, QUARTZ CHRYSTALS, AND PAINT
H7786	INSULATION (BLUE) ON REFRIGERATED UNITS	STOCK AREA	CELLULOSE, PAPER, BINDERS, STYROFOAM AND QUARTZ CHRYSTALS
* H7787	FLOOR TILE, 1'x1', WHITE	RESTROOMS	<1% CHRYSOTILE ASBESTOS
H7788	CEILING TILE, 2'x4', WHITE	STOREFRONT	GLASS FIBERS

* Asbestos-containing materials - The percent of various material components was estimated by the microscopist during the analysis. Polarized Light Microscopy (PLM) coupled with dispersion staining was the method of identification used.

The results of these analyses should not be used to prepare a scope of work for abatement without consulting with Law Engineering.

TABLE V-B
BUILDING D - OSCO'S DRUG STORE
CHULA VISTA MALL
SUMMARY OF BULK SAMPLE ANALYSES
FOR ASBESTOS IDENTIFICATION

LETCO ASSOCIATES PROJECT NO. HT-1914-87A, TASK 1 DATE: APRIL 23, 1987

LAB NUMBER	SAMPLE TYPE	LOCATION	RESULTS OF PLM ANALYSIS
H7789	ROOF FLASHING	ROOF	GLASS FIBERS, CELLULOSE AND TAR
H7790	CEILING INSULATION	CEILING	GLASS FIBERS
H7791	COLUMN WRAP	STORAGE AREA	BINDERS, QUARTZ CHRYSTALS AND MICA
* H7792	SPRAY-APPLIED CEILING TEXTURE	2ND FLOOR OFFICE SPACE	5% CHRYSOTILE
* H7793	SPRAY-APPLIED CEILING TEXTURE	CEILING TEXTURE ABOVE LAY-IN CEILING, STOREFRONT	10% CHRYSOTILE
H7794	CEILING TILE, 2'x4', WHITE	CEILING	GLASS FIBERS, PERLITE, CELLULOSE AND BINDERS

* Asbestos-containing materials - The percent of various material components was estimated by the microscopist during the analysis. Polarized Light Microscopy (PLM) coupled with dispersion staining was the method of identification used.

The results of these analyses should not be used to prepare a scope of work for abatement without consulting with Law Engineering.

TABLE V-B
BUILDING D - OSCO'S DRUG STORE
CHULA VISTA MALL
SUMMARY OF BULK SAMPLE ANALYSES
FOR ASBESTOS IDENTIFICATION

LETCO ASSOCIATES PROJECT NO. HT-1914-87A, TASK 1 DATE: APRIL 23, 1987

LAB NUMBER	SAMPLE TYPE	LOCATION	RESULTS OF PLM ANALYSIS
H7795	FLOOR TILE, 1'x1', WHITE	STOREFRONT	BINDERS AND CALCITE CHRYSTALS

* Asbestos-containing materials - The percent of various material components was estimated by the microscopist during the analysis. Polarized Light Microscopy (PLM) coupled with dispersion staining was the method of identification used.

The results of these analyses should not be used to prepare a scope of work for abatement without consulting with Law Engineering.

SECTION VI
BUILDING F - SECURITY PACIFIC BANK

VI. BUILDING F - SECURITY PACIFIC NATIONAL BANK

Building F houses the Security Pacific National Bank. It is located adjacent to the west end of Building D (Von's Food Market). The exterior walls are brick, glass, and textured plaster. The roof is of plywood and wood construction. It is a single story structure with two levels at the south end and comprises 6,600 square feet. The second level is used for offices, storage, and mechanical rooms.

The HVAC system for this building is housed on the second floor. Various types of insulated lines were observed. Ceiling finishes included two foot square and one foot square suspended ceiling tile, with the two foot square tile located in the banking area. Floor finishes included carpeting, six inch square floor tile and nine inch square floor tile.

SUSPECT MATERIALS

Materials sampled include pipe insulation, ceiling tile, floor tile, and textured cement plaster. Of the samples obtained the pipe insulation and floor tile contained asbestos fibers. Results of the material sampling is presented in Table VI. A brief summary of the asbestos-containing materials identified and their respective locations is listed below. Recommendations for the various areas are discussed in Section XIII.

SUSPECT MATERIALS - BUILDING F

Location	Asbestos-Containing Material Identified
HVAC Room	Pipe Insulation
Second Floor Offices	———
Bank Lobby	———
Ready Teller Area	Floor Tile

HVAC Room

The HVAC room is located on the second floor the HVAC unit supply and return insulated pipe lines were found to contain asbestos fibers on the straight runs. No insulation was evident at valves, tees, or elbows. The lines penetrate the north wall and run above the roof. No pipe insulation was evident on these lines.

Ready Teller Area

Nine inch square brown floor tile was sampled from this area. Analysis revealed less than one percent Chrysotile asbestos. The floor tile is considered a non-friable substance in its present condition.

POTENTIAL HAZARDS

None noted.

TABLE VI
BUILDING F - SECURITY PACIFIC BANK
CHULA VISTA MALL
SUMMARY OF BULK SAMPLE ANALYSES
FOR ASBESTOS IDENTIFICATION

PAGE 1 OF 1
LETCO ASSOCIATES PROJECT NO. HT-1914-87A, TASK 1

DATE: APRIL 28, 1987

LAB NUMBER	SAMPLE TYPE	LOCATION	RESULTS OF PLM ANALYSIS
* H7804	PIPE INSULATION, STRAIGHT	HVAC ROOM	5% CHRYSOTILE ASBESTOS 40% AMOSITE ASBESTOS
* H7805	RETURN LINE, STRAIGHT RUN	HVAC ROOM	5% CHRYSOTILE ASBESTOS 40% AMOSITE ASBESTOS
H7806	CEILING TILE, 1'x1', TYPICAL IN BACK AREA	2ND FLOOR OFFICE SPACE	WOOD FIBERS AND MICA
* H7087	FLOOR TILE, 9"x9", BROWN	READY TELLER AREA	<1% CHRYSOTILE ASBESTOS
H7808	TEXTURED CEMENT PLASTER	SECURITY PACIFIC NATIONAL	CALCITE CHRYSTALS AND PAINT

* Asbestos-containing materials - The percent of various material components was estimated by the microscopist during the analysis. Polarized Light Microscopy (PLM) coupled with dispersion staining was the method of identification used.

The results of these analyses should not be used to prepare a scope of work for abatement without consulting with Law Engineering.

SECTION VII
BUILDING G - J.C. PENNEY'S TIRE STORE

VII. BUILDING G

Building G is presently vacant. At one time it housed a Tire, Battery and Auto (TBA) shop operated by J.C. Penney's. It is located at the corner of Fifth Avenue and I Street. A single story structure with 6,729 square feet of space, the building is divided into three sections; a storage area, the garage area, and the storefront area. It is of masonry construction with a roof of corrugated metal decking supported by steel bar joists.

The heating and air conditioning unit is roof mounted with fiberglass insulated duct lines. A hot water tank for domestic water supply is located near the restrooms. No insulated lines were observed near the tank.

Floor finishes included nine inch square blue and white floor tile in the store front, and have a concrete slab in all other areas. The ceiling finish is two foot by four foot acoustical tile.

SUSPECT MATERIALS

Materials sampled included floor and ceiling tile, of which only the floor tile was found to contain asbestos. Results of the material sampling is presented in Table VII. A brief summary of the asbestos-containing materials identified and their respective locations is listed below. Recommendations for the various areas are discussed in Section XIII.

SUSPECT MATERIALS - BUILDING G

Location	Asbestos-Containing Material Identified
Storage Area	———
Garage	———
Storefront	Floor Tile

Floor Tile

In the storefront area, blue and white nine inch square floor tiles exist. Both types of tile were found to contain asbestos. The blue tile sample was found to contain less than one percent Chrysotile asbestos, while the white tile contains about one percent. Both types of tile are in fair condition and are not considered hazardous in their present condition. This material is considered to be non-friable.

POTENTIAL HAZARDS

Information provided by others indicates that, at one time, a waste oil holding tank was located at the north end of the building. At the time of this survey, no aboveground tank was observed at this location.

TABLE VII
BUILDING G - J.C. PENNEY TIRE STORE
SUMMARY OF BULK SAMPLE ANALYSES
FOR ASBESTOS IDENTIFICATION

PAGE 1 OF 1
LETCO ASSOCIATES PROJECT NO. HT-1914-87A, TASK 1 DATE: APRIL 28, 1987

LAB NUMBER	SAMPLE TYPE	LOCATION	RESULTS OF PLM ANALYSIS
* H7820	FLOOR TILE, 9"x9", BLUE	TIRE STORE, VACANT	<1% CHRYSOTILE ASBESTOS
* H7821	FLOOR TILE, 9"x9", WHITE	TIRE STORE	1% CHRYSOTILE ASBESTOS
H7822	CEILING TILE, 2'x4'	TIRE STORE	GLASS FIBERS, CELLULOSE, BINDERS AND PAINT

* Asbestos-containing materials - The percent of various material components was estimated by the microscopist during the analysis. Polarized Light Microscopy (PLM) coupled with dispersion staining was the method of identification used.

The results of these analyses should not be used to prepare a scope of work for abatement without consulting with Law Engineering.

SECTION VIII
BUILDING H - RETAIL SPACES

VIII. BUILDING H - RETAIL SPACES

Building H is located directly west of Building D (Von's, Osco's) and adjacent to it. The building contains seven retail spaces which comprise a total of 7,850 square feet. It is a single level structure with no basement area.

The exterior walls are of masonry and glass. The roofs are corrugated metal decking supported by bar joists. Ceiling finishes vary from space to space.

SUSPECT MATERIALS

Materials sampled include pipe insulation, duct insulation, ceiling tile, floor tile, plaster, and spray-applied ceiling texture. Of the samples obtained, the pipe insulation, floor tile, and spray-applied ceiling texture were found to contain asbestos. A brief summary of the materials identified to contain asbestos and their respective locations is listed below. Results of the material survey is presented in Table VIII. Recommendations for the various areas will be discussed in Section XIII.

SUSPECT MATERIALS - BUILDING H

Location	Asbestos-Containing Material Identified
Coin Laundry	———
Hank & Paul's Barber Shop	Floor Tile 9"x9" (White)
Merchant Association Office	———
Natural Foods	Spray-Applied Ceiling Texture
Perma Clean	———
Sonya's Hairstylist	Spray-Applied Ceiling Texture
	Pipe Insulation
	Floor tile

Location	Asbestos-Containing Material Identified
Winchell's Donuts	Pipe Insulation (Elbow)
Corridor(s)	———
Roof	———

Hank & Paul's Barber Shop

A sample of floor tile from this area was found to contain less than one percent Chrysotile asbestos. The nine inch square white floor tile is considered to be a non-friable substance which is not considered to be hazardous in its present condition.

Natural Foods

A sample taken from the spray-applied ceiling texture in the two areas which comprise the store revealed the presence of Chrysotile asbestos. At the west end of the store, the ceiling texture exhibited clear signs of delamination within the vicinity of the diffusers and grills. Ceiling tile one foot square has been directly affixed to the spray-applied texture in the east area of the store. Several pieces of tile in this area have fallen creating a greater potential for fiber release. The general condition of the asbestos-containing material in this area is considered to be.

Sonya's Hairstylist

Spray-applied ceiling texture was also found in this area. Upon analysis, the sample was found to contain five percent Chrysotile asbestos. The condition of the material is considered poor due to delamination which appears to have resulted from air movement from diffusers and grills.

A hot water tank is located at the rear of the store which contains insulated pipe lines. A sample of the pipe insulation (elbow) was found to contain asbestos. The condition of the insulation is poor due to damaged and chipped ends.

A sample of floor tile nine inch square was also found to contain four percent Chrysotile asbestos. The tile is in relatively good condition at this time. It is considered to be a non-friable substance.

Winchell's Donuts

A hot water tank located in the kitchen of Winchell's Donuts was found to contain two lines insulated (elbows) with asbestos. One line is presently inactive. In general, the condition of the asbestos-containing insulation is considered poor.

POTENTIAL HAZARDS

Perma Clean, a dry cleaner, contains operational steam presses with a remote boiler in the back of the store. Numerous types of insulation were observed, with those suspected of containing asbestos sampled and analyzed. None of the tested samples were found to contain asbestos. Several of these lines were from the remote boiler. Within the boiler room itself, cleaning supplies and several items in storage may constitute a potential hazard.

TABLE VIII
BUILDING H - RETAIL SPACES
CHULA VISTA MALL
SUMMARY OF BULK SAMPLE ANALYSES
FOR ASBESTOS IDENTIFICATION

LETCO ASSOCIATES PROJECT NO. HT-1914-87A, TASK 1 DATE: APRIL 28, 1987

LAB NUMBER	SAMPLE TYPE	LOCATION	RESULTS OF PLM ANALYSIS
H7766	DUCT INSULATION	MERCHANT ASSOCIATION OFFICE, ROOF ACCESS	GLASS FIBERS AND PERLITE
H7765	PLASTER	MERCHANT ASSOCIATION OFFICE, ROOF ACCESS	BINDERS, QUARTZ AND CHERT CHRYSTALS
* H7796	SPRAY-APPLIED CEILING TEXTURE	NATURAL FOODS	3% CHRYSOTILE ASBESTOS
H7797	CEILING TILE, 1'x1', (AFFIXED TO SPRAY-APPLIED TEXTURE)	NATURAL FOODS	GLASS FIBERS, PERLITE, WOOD BINDERS AND PAINT
* H7798	PIPE INSULATION, ELBOW	WINCHELL'S DONUTS, HOT WATER TANK (INACTIVE)	15% CHRYSOTILE ASBESTOS
* H7799	PIPE INSULATION, ELBOW	WINCHELL'S DONUTS, HOT WATER TANK (ACTIVE)	15% CHRYSOTILE ASBESTOS

* Asbestos-containing materials - The percent of various material components was estimated by the microscopist during the analysis. Polarized Light Microscopy (PLM) coupled with dispersion staining was the method of identification used.

The results of these analyses should not be used to prepare a scope of work for abatement without consulting with Law Engineering.

TABLE VIII
BUILDING H - RETAIL SPACES
CHULA VISTA MALL
SUMMARY OF BULK SAMPLE ANALYSES
FOR ASBESTOS IDENTIFICATION

LETCO ASSOCIATES PROJECT NO. HT-1914-87A, TASK 1 DATE: APRIL 28, 1987

LAB NUMBER	SAMPLE TYPE	LOCATION	RESULTS OF PLM ANALYSIS
H7800	FLOOR TILE, 1'x1', BEIGE	WINCHELL'S DONUTS, KITCHEN AREA	BINDERS, QUARTZ CHRYSTALS AND CALCITE CHRYSTALS
* H7801	FLOOR TILE, 9"x9", WHITE	HANK & PAUL'S BARBER SHOP	<1% CHRYSOTILE ASBESTOS
H7802	FLOOR TILE, 1'x1', BEIGE	HANK & PAUL'S BARBER SHOP	CELLULOSE, PAPER, MICA AND CALCITE CHRYSTALS
H7803	FLOOR TILE, 1'x1', WHITE	COIN LAUNDRY, COMMON AREA	BINDERS, CALCITE AND QUARTZ CHRYSTALS
* H7823	SPRAY-APPLIED CEILING TEXTURE	SONYA'S HAIRSTYLIST	5% CHRYSOTILE ASBESTOS
* H7824	PIPE INSULATION, HOT WATER HEATER, ELBOW	SONYA'S HAIRSTYLIST	3% CHRYSOTILE ASBESTOS

* Asbestos-containing materials - The percent of various material components was estimated by the microscopist during the analysis. Polarized Light Microscopy (PLM) coupled with dispersion staining was the method of identification used.

The results of these analyses should not be used to prepare a scope of work for abatement without consulting with Law Engineering.

TABLE VIII
BUILDING H - RETAIL SPACES
CHULA VISTA MALL
SUMMARY OF BULK SAMPLE ANALYSES
FOR ASBESTOS IDENTIFICATION

LETCO ASSOCIATES PROJECT NO. HT-1914-87A, TASK 1 DATE: APRIL 28, 1987

LAB NUMBER	SAMPLE TYPE	LOCATION	RESULTS OF PLM ANALYSIS
* H7825	FLOOR TILE, 9"x9", BROWN	SONYA'S HAIRSTYLIST	<1% CHRYSOTILE ASBESTOS
H7826	PIPE INSULATION, STEAM-LINE, ELBOW	PERMA CLEAN	GLASS FIBERS, PERLITE, CELLULOSE, PAPER AND BINDERS
H7827	FLOOR TILE, 1'x1', WHITE	PERMA CLEAN	BINDERS AND CALCITE CHRYSTALS

* Asbestos-containing materials - The percent of various material components was estimated by the microscopist during the analysis. Polarized Light Microscopy (PLM) coupled with dispersion staining was the method of identification used.

The results of these analyses should not be used to prepare a scope of work for abatement without consulting with Law Engineering.

SECTION IX
PACIFIC BELL BUILDING

IX. PACIFIC BELL BUILDING

The Pacific Bell Building is located to the west of Building D and to the south of Building C. The structure includes approximately 12,000 square feet of office space. The facility was constructed in 1963. It is a masonry structure with corrugated steel decking supported by steel bar joists. A spray-applied fireproofing has been applied to all areas of the decking and joists.

Two mechanical rooms situated at ground level are located in the southwest corner of the building. Various types of insulation were noted in the mechanical rooms. The ceiling consisted of two foot by four foot lay-in acoustical ceiling tile. Floor finishes consist of floor tile and carpets.

SUSPECTED MATERIALS

Materials sampled include fireproofing, ceiling tile, floor tile, sound insulation, pipe insulation, and roofing materials. Of the samples taken, the fireproofing, pipe insulation, and roof flashing were found to contain asbestos. Results from the analyses are presented in Table IX. A brief summary of the materials identified to contain asbestos and their respective locations is presented below. Recommendations for the various areas are discussed in Section XIII.

SUSPECT MATERIALS - PACIFIC BELL BUILDING

Location	Asbestos-Containing Material Identified
Storage Area	Fireproofing
Office Area	———
Lobby	———
Computer Room	———
Mechanical Room	Pipe Insulation (Elbow)
Roof	Roof Flashing

Storage Area

Material sampled in this area is typical throughout the building. The two samples of the fireproofing taken from this area both contained ten percent Chrysotile asbestos. The corrugated steel decking and joists have spray-applied fireproofing in all areas of the facility (Pacific Bell Building).

Mechanical Room

Various types of insulation were observed in each of the two mechanical rooms. Two samples were obtained from insulated pipe lines believed to be cold and hot water lines, respectively. Pipe insulation from the hot water line (elbow) was found to contain asbestos. Insulated material of other pipe lines at elbows, valves, and tees are similar in appearance to that sampled.

Roof

Analysis of a material sample from the roof flashing of the Pacific Bell Building indicated it to contain asbestos. The roof flashing is considered a non-friable material. In its present condition, it is not considered a potential hazard.

POTENTIAL HAZARDS

None noted.

TABLE IX
CHULA VISTA MALL - PACIFIC BELL BUILDING
SUMMARY OF BULK SAMPLE ANALYSES
FOR ASBESTOS IDENTIFICATION

PAGE 1 OF 2
LETCO ASSOCIATES PROJECT NO. HT-1914-87A, TASK 1 DATE: APRIL 28, 1987

LAB NUMBER	SAMPLE TYPE	LOCATION	RESULTS OF PLM ANALYSIS
* H7828	FIREPROOFING OVERSPRAY ON MASONRY	STORAGE AREA	10% CHRYSOTILE ASBESTOS
* H7829	FIREPROOFING ON OPEN WEB TRUSS	STORAGE AREA	10% CHRYSOTILE ASBESTOS
H7830	CEILING TILE, 2'x4'	STORAGE AREA	GLASS FIBERS, PERLITE, WOOD FIBERS AND BINDERS
H7831	FLOOR TILE, 1'x1', BEIGE	STORAGE AREA	BINDERS AND CALCITE CHRYSTALS
H7832	WALL TILE (SOUND INSULATION), 1'x1'	COMPUTER ROOM	GLASS FIBERS, PERLITE, CELLULOSE AND BINDERS
H7833	PIPE INSULATION, ELBOW	MECHANICAL ROOM	CELLULOSE, STYROFOAM, TAR AND LATEX GLUE

* Asbestos-containing materials - The percent of various material components was estimated by the microscopist during the analysis. Polarized Light Microscopy (PLM) coupled with dispersion staining was the method of identification used.

The results of these analyses should not be used to prepare a scope of work for abatement without consulting with Law Engineering.

TABLE IX
CHULA VISTA MALL - PACIFIC BELL BUILDING
SUMMARY OF BULK SAMPLE ANALYSES
FOR ASBESTOS IDENTIFICATION

LETCO ASSOCIATES PROJECT NO. HT-1914-87A, TASK 1 DATE: APRIL 28, 1987

LAB NUMBER	SAMPLE TYPE	LOCATION	RESULTS OF PLM ANALYSIS
* H7834	PIPE INSULATION, ELBOW, HOT WATER LINE	MECHANICAL ROOM	10% CHRYSOTILE ASBESTOS
* H7835	ROOF FLASHING	ROOF	15% CHRYSOTILE ASBESTOS

* Asbestos-containing materials - The percent of various material components was estimated by the microscopist during the analysis. Polarized Light Microscopy (PLM) coupled with dispersion staining was the method of identification used.

The results of these analyses should not be used to prepare a scope of work for abatement without consulting with Law Engineering.

SECTION X
BOB'S BIG BOY
BURGER KING

BOB'S BIG BOY AND BURGER KING

Bob's Big Boy and Burger King Restaurants are located along Broadway Street to the west of the shopping center. Both buildings are relatively new additions to the shopping center.

Burger King has four remote air handling units which are roof mounted. There is ceramic floor tile throughout, with two feet by four feet acoustical ceiling tile in the restaurant area.

Bob's Big Boy has vaulted ceilings with sound insulation in the form of cork tiles affixed to it. The floor finishes is ceramic floor tile.

SUSPECTED MATERIALS

Material samples were obtained from roofing material, ceiling tile, and floor tile. The analyses indicated that none of the samples contained asbestiform minerals. Results of the material survey is presented in Tables X-A and X-B.

POTENTIAL HAZARDS

None noted.

TABLE X-B
BURGER KING
CHULA VISTA MALL
SUMMARY OF BULK SAMPLE ANALYSES
FOR ASBESTOS IDENTIFICATION

LETCO ASSOCIATES PROJECT NO. HT-1914-87A, TASK 1 DATE: APRIL 28, 1987

LAB NUMBER	SAMPLE TYPE	LOCATION	RESULTS OF PLM ANALYSIS
H7809	ROOF FLASHING	ROOF	GLASS FIBERS, CELLULOSE, TAR AND ROCK FRAGMENTS
H7810	CEILING TILE, 2'x4'	COOKING AREA	GLASS FIBERS, CELLULOSE AND BINDERS
H7811	CEILING TILE, 2'x2'	COMMON AREA	GLASS FIBERS, PERLITE, CELLULOSE AND BINDERS

* Asbestos-containing materials - The percent of various material components was estimated by the microscopist during the analysis. Polarized Light Microscopy (PLM) coupled with dispersion staining was the method of identification used.

The results of these analyses should not be used to prepare a scope of work for abatement without consulting with Law Engineering.

SECTION XI
BOY'S CLUB

TABLE X-A
BOB'S BIG BOY
CHULA VISTA MALL
SUMMARY OF BULK SAMPLE ANALYSES
FOR ASBESTOS IDENTIFICATION

PAGE 1 OF 1
LETCO ASSOCIATES PROJECT NO. HT-1914-87A, TASK 1 DATE: APRIL 28, 1987

LAB NUMBER	SAMPLE TYPE	LOCATION	RESULTS OF PLM ANALYSIS
H7812	ROOF FLASHING	ROOF	GLASS FIBERS, CELLULOSE, TAR AND ROCK FRAGMENTS
H7813	CEILING TILE, 2'x4', WHITE	EMPLOYEE LOUNGE	GLASS FIBERS, PERLITE, WOOD FIBERS AND BINDERS
H7814	FLOOR TILE, 1'x1', BROWN	OFFICE SPACE	BINDERS AND CALCITE CHRYSTALS
H7815	CEILING TILE, 1'x1'	CORRIDOR	CELLULOSE, PAPER AND PAINT

* Asbestos-containing materials - The percent of various material components was estimated by the microscopist during the analysis. Polarized Light Microscopy (PLM) coupled with dispersion staining was the method of identification used.

The results of these analyses should not be used to prepare a scope of work for abatement without consulting with Law Engineering.

XI. BOY'S CLUB

The Boy's Club is located at the corner of 5th Avenue and I Street. This facility is composed of a gymnasium, recreational room and several offices/classrooms. The building was erected in 1957.

The Boy's Club is both a steel and wood frame structure. The ceiling is primarily one foot square snap-in ceiling tile. Other ceiling finishes include plaster and wood. Floor finishes include carpet and nine inch square floor tile of which there are two types, green and brown.

Heating is supplied by six electrical units in various areas of the building. There are two units in the gymnasium, two in the recreational room, and two in offices/classrooms. No air conditioning system is present in the facility. At one time, hot water for locker room showers was supplied by a boiler situated near the north entrance of the building. At the present time, the boiler is inactive. All that now remains is a hot water tank approximately eight feet high and four feet in diameter.

SUSPECT MATERIALS

Samples of floor tile, ceiling tile, duct insulation, plaster, tank insulation, and roof flashing were obtained. Of these samples, floor tile, duct insulation, and tank insulation were found to contain asbestiform minerals. Results of the laboratory analyses are presented in Table XI. Recommendations are discussed in Section XIII.

Storage Areas

The predominant source of asbestos-containing material in the building is the hot water tank (inactive). The area where this tank is located is presently being used for storage. The general condition of the tank insulation is considered poor. Several areas exhibit evidence of damage, predominantly at the top of the tank.

Heating Units

There are six electrical heating units located throughout the facility. Associated with each of these units is a duct which penetrates the roof. The duct itself is of metal construction with a non-friable material (approximately 1/8" to 1/4" thick) surrounding it. There is some evidence of damage particularly at joints and ends. The insulating material was sampled above and below the roof line in both instances the material was found to be similar and to contain asbestiform minerals.

Lounge

There were two types of floor tile present in the facility. Both types were nine inch square floor tile, either green or brown. The green floor tile was predominant in the area. In the lounge located on the south side of the building, and area of approximately 500 square feet of brown floor tile exists. This floor tile was found to contain a significant percentage of asbestos. The tile is non-friable and is considered to be non-hazardous in its present condition.

POTENTIAL HAZARDS

None noted.

TABLE XI
CHULA VISTA - BOY'S CLUB
SUMMARY OF BULK SAMPLE ANALYSES
FOR ASBESTOS IDENTIFICATION

PAGE 1 OF 2
LETCO ASSOCIATES PROJECT NO. HT-1914-87A, TASK 1 DATE: APRIL 28, 1987

LAB NUMBER	SAMPLE TYPE	LOCATION	RESULTS OF PLM ANALYSIS
H7447	FLOOR TILE, 9"x9", GREEN	RECREATIONAL ROOM	<1% CHRYSOTILE ASBESTOS
* H7448	FLOOR TILE, 9"x9", BROWN	LOUNGE	2% CHRYSOTILE ASBESTOS
* H7449	DUCT INSULATION	ELECTRICAL HEATING UNIT, RECREATONAL ROOM	15% CHRYSOTILE ASBESTOS
H7750	PLASTER	ELECTRICAL HEATING UNIT, RECREATIONAL ROOM	BINDERS AND QUARTZ CHRYSTALS
H7751	CEILING TILE, 1'x1', WHITE	TYPICAL THROUGHOUT	WOOD FIBERS AND BINDERS
H7752	PLASTER, WALL MATERIAL	STORAGE AREA	BINDERS AND QUARTZ CHRYTALS

* Asbestos-containing materials - The percent of various material components was estimated by the microscopist during the analysis. Polarized Light Microscopy (PLM) coupled with dispersion staining was the method of identification used.

The results of these analyses should not be used to prepare a scope of work for abatement without consulting with Law Engineering.

TABLE XI
CHULA VISTA - BOY'S CLUB
SUMMARY OF BULK SAMPLE ANALYSES
FOR ASBESTOS IDENTIFICATION

PAGE 2 OF 2
LETCO ASSOCIATES PROJECT NO. HT-1914-87A, TASK 1 DATE: APRIL 28, 1987

LAB NUMBER	SAMPLE TYPE	LOCATION	RESULTS OF PLM ANALYSIS
H7753	CEILING TILE, 1'x1', WHITE, (DUPLICATE SAMPLE)	ENTRANCEWAY	WOOD FIBERS AND BINDERS
* H7754	HOT WATER TANK INSULATION	INACTIVE BOILER ROOM	5% CHRYSOTILE ASBESTOS 40% AMOSITE ASBESTOS
* H7755	FLOOR TILE, 9"x9", GREEN (DUPLICATE SAMPLE)	GYMNASIUM OFFICE	<1% CHRYSOTILE ASBESTOS
* H7756	DUCT INSULATION	ROOF, ELECTRICAL HEATING UNIT	15% CHRYSOTILE ASBESTOS
H7757	ROOF FLASHING	ROOF	CELLULOSE, PAPER, TAR AND ROCK FRAGMENTS

* Asbestos-containing materials - The percent of various material components was estimated by the microscopist during the analysis. Polarized Light Microscopy (PLM) coupled with dispersion staining was the method of identification used.

The results of these analyses should not be used to prepare a scope of work for abatement without consulting with Law Engineering.

SECTION XII

RESIDENCE

XII. RESIDENCE

The residence is located at the corner of I Street and 5th Avenue. It is a two level structure which comprises approximately 2,000 square feet. Plaster and lathe construction exists throughout the structure with the exception of an additional room presently being added, which is of wood construction. The house was erected in 1916.

One central heating unit is floor mounted within the house. No air conditioning is evident. All water lines appear to be uninsulated and run underneath the house. A clothes washer and dryer is located in a storage area on the north side of the house.

SUSPECTED MATERIALS

Materials sampled included roofing shingles, plaster wall material, and dryer exhaust ventilation. Of those only the dryer exhaust insulation was found to contain asbestiform minerals. Results of the material survey is presented in Table XII. Recommendations for the various areas will be discussed in the next section.

POTENTIAL HAZARDS

None noted.

TABLE XII
CHULA VISTA MALL - RESIDENCE
SUMMARY OF BULK SAMPLE ANALYSES
FOR ASBESTOS IDENTIFICATION

PAGE 1 OF 1
LETCO ASSOCIATES PROJECT NO. HT-1914-87A, TASK 1 DATE: APRIL 28, 1987

LAB NUMBER	SAMPLE TYPE	LOCATION	RESULTS OF PLM ANALYSIS
H7758	ROOFING SHINGLE	ROOF	CELLULOSE, PAPER AND TAR
H7759	PLASTER WALL MATERIAL	LIVING AREA	MICA, QUARTZ AND CHERT CHRYSTALS
* H7760	DRYER EXHAUST INSULATION	LAUNDRY ROOM	90% CHRYSOTILE ASBESTOS

* Asbestos-containing materials - The percent of various material components was estimated by the microscopist during the analysis. Polarized Light Microscopy (PLM) coupled with dispersion staining was the method of identification used.

The results of these analyses should not be used to prepare a scope of work for abatement without consulting with Law Engineering.

SECTION XIII
RECOMMENDATIONS AND OPINION OF COST

XIII. RECOMMENDATIONS AND OPINION OF COST

Included in this section are recommendations for those areas where asbestos-containing materials were identified, and photographic documentation, and an opinion of cost. Recommendations are presented for each type of material identified to contain asbestos. Individual spaces for which the recommendation applies are noted. An Engineer's Opinion of Cost for the individual spaces is itemized in tabular form.

RECOMMENDATIONS

Spray-Applied Ceiling Texture

In several areas within the different buildings, a spray-applied ceiling texture was found to contain from 5 to 15 percent asbestiform minerals. In most of these areas with the exception of a few, delamination was evident near diffusers and grills. In these areas removal of the asbestos-containing material is recommended. Removal of this material should be performed under abatement conditions by properly trained personnel. The specific areas identified are as follows:

- Building A - Koven's Jewelry
- Building D - Osco's Drug Store
- Building H - Natural Foods Store
  Sonya's Hairstylist

Pipe Insulation

Of the several buildings which comprise the Chula Vista Shopping Center there are several locations (hot water tanks, HVAC rooms, boiler rooms, etc.) with insulated pipe lines containing asbestiform minerals. In most cases, it was isolated elbows, valves, or otherwise small sections of pipe insulation which contained the asbestos. Removal of the hazardous insulative material is the best long term alternative. However, in those cases where the protective wrap is torn it can be repaired with

the proper sealant. If the penetration extends beyond the wrap into the insulated material, we recommend removal of the material by qualified personnel. Areas identified where asbestos-containing pipe insulation exists are as follows:

- Building A - Highlander
  Leed's Shoe Store
  Miller's Outpost (past)
  Penthouse HVAC Enclosure
- Building B - Penthouse HVAC
- Building C - J.C. Penney's
- Building F - Security Pacific Bank
- Building H - Sonya's Hairstylist
  Winchell's Donuts
- Pacific Bell Building

Two alternatives exist in removing the suspect insulation. The area can be isolated and the material removed under abatement conditions or if only small sections (e.g. valves, elbows, tees) are to be removed, the pipe section can be isolated and the material removed using a glove bag technique.

Hot Water Tank Insulation

A hot water tank located in the Boy's Club in an area which is presently being used for storage. The tank is approximately eight feet high and four feet in diameter. The tank should be isolated and the material removed under abatement conditions. This tank is considered a high priority since a large percentage of the protective wrap has been damaged leaving the asbestos-containing insulation exposed.

Floor Tile

In several areas, floor tile was found to contain less than one percent of asbestiform minerals. In the space which was at one time Miller's Outpost, a brown floor tile sample was found to contain two percent Chrysotile asbestos. The floor tile in its present condition is non-friable and is not considered hazardous

in its present state. Asbestos-containing floor tiles were identified in the following general locations:

- Boy's Club - Lounge
- Miller's Outpost (vacant)
- J.C. Penney's TBA

Duct Insulation

In most cases, duct insulation was found to be of fiberglass or mineral wool insulation. However, heat exhausts (dryer and electrical heating units) were found to contain a high percentage of asbestos. The heat exhaust insulation is no more than five feet long, in each case, and is a very hard brittle substance. Evidence of chipping was noted in accessible locations. This material should be removed and disposed of as a non-friable asbestos waste. The asbestos-containing duct insulations were identified in the following locations:

- Boy's Club (Heat Exhaust)
- Residence (Heat Exhaust)
- J.C. Penney's (Flex Joint)
- Building B (Flex Joints)

Chilling Tower

On the roof of J.C. Penney's the transite boards/slats which surround the chilling tower, contain a high percentage of asbestos. This material is a non-friable building material which does not present a potential hazard unless broken or drilled. The material is presently considered to be in fair condition. To prevent problems or inadverent contamination, we recommend that the material should be removed and disposed of as asbestos-containing waste.

Roofing

A sample of roofing material was taken from the Pacific Bell Building. It was found to contain 15 percent Chrysotile asbestos. In its present condition, the material is not considered hazardous. We do not recommend removal of the material unless warranted due to damage, reconstruction or deterioration. Periodic inspection should be performed to assess the condition of the material.

Fireproofing

Asbestos-containing fireproofing was found only in the Pacific Bell Building. The corrugated metal decking, steel bar joists, and various ceiling components certain spray-applied fireproofing. To eliminate the risk of contamination, we recommend removal of the material by a qualified contractor.

Prior to abatement of the material, an inspection program should be initiated to periodically document the condition of the material.

Engineer's Opinion of Cost

A budgetary figure has been developed for your use in estimating future costs for removal of the various items noted in previous sections. The prices noted are for removal of the asbestos-containing material identified as a result of this survey. Unit costs were determined on a square foot (linear feet) basis from prior experience in the Southern California area.

Building A

1.	Highlander - Pipe Insulation	$	1,000.00
2.	Koven's Jewelry - Ceiling Texture (Approximately 2250 sq. ft.)		33,750.00
3.	Leed's Shoe Store - Pipe Insulation		250.00
4.	Miller's Outpost (Vacant) - Ceiling Texture (Approx. 600 sq. ft.)		10,000.00
5.	Roof, Penthouse AC - Pipe Insulation		2,500.00
	Subtotal	$	47,500.00

Building B

1.	Roof (Penthouse AC)		
	a. Pipe Insulation	$	2,500.00
	b. Flex Joints		500.00
	Subtotal	$	3,000.00

Building C - J.C. Penney's

1.	Roof, AC - Pipe Insulation	$	2,500.00
2.	Chilling Tower		5,000.00
3.	Flex Joints		300.00
	Subtotal	$	7,800.00

Building D - Von's, Osco's

1. Von's		-----
2. Osco's		
a. Spray-Applied Ceiling Texture		$ 315,000.00
	Subtotal	$ 315,000.00

Building F - Security Pacific Bank

1. HVAC Room - Pipe Insulation		$ 1,500.00
	Subtotal	$ 1,500.00

Building G - J.C. Penney's (TBA)

1. Floor Tile (Approx. 800 sq. ft.)		$ 4,000.00
	Subtotal	$ 4,000.00

Building H - Various Retail Spaces

1. Natural Foods - Ceiling Texture (Approx. 700 sq. ft.)		$ 12,500.00
2. Sonya's Hairstylist - Ceiling Texture (Approx. 400 sq. ft.)		6,000.00
3. Winchell's Donuts, Pipe Insulation		250.00
	Subtotal	$ 18,750.00

Pacific Bell Building

1. Fireproofing - (Approx. 12,000 sq. ft.)		$ 360,000.00
2. Mechanical Room - (Pipe Insulation, Elbows)		1,000.00
	Subtotal	$ 361,000.00

Bob's Big Boy and Burger King

	Subtotal	$ -----

Boy's Club

1. Hot Water Tank		$ 5,000.00
2. Lounge Floor Tile - (Approx. 500 sq. ft.)		2,500.00
	Subtotal	$ 7,500.00

Residence

1. Dryer Exhaust		$ 250.00
	Subtotal	$ 250.00
	TOTAL	$ 766,300.00